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The Feeding and Fattening of Cattle.

It is evident from the state of the markets, from the prices, from the demand and supply, that the breeding, raising, feeding and fattening of animals of all kinds used by the butcher, must occupy a greater share of the attention of farmers than it has heretofore. The season is now at hand when the feeding of fattening stock should be considered of importance enough to deserve the attention of every true agriculturist, and we shall therefore lay down a few of the first principles by which the farmers of Michigan should be guided in this important work. In commencing to feed, the first question that will arise, after selecting the stock to be fatted, is whether it will be most profitable to put the animals under cover, or leave them in the open yard, with merely sheds, to which they can resort when they choose. The advocates of the stalls for fattening cattle argue, that the animals waste less food, are kept warmer, and come faster into complete condition, than can be the results where they are turned out to all the inclemency of the weather, and left to fight their way to the feeding troughs or racks with stronger or more active beasts. The yard feeders on their part argue that stalls make the cattle tender and delicate, that they are not as healthy, do not make as good a quality of beef, and that it is too much work to clean and feed them, and that this alone takes off the profits. One of the most successful feeders in the State, Mr. S. Lyndon of Canton, has his cattle in yards. They feed from racks in sheds. The whole yard is littered with straw so deep that they make lairs in it during the cold weather. These lairs however are invariably made under the sheds, showing that the animals prefer a shelter. The two systems, though seemingly opposed to each other, are nevertheless, both right when correctly applied. For aged or full grown animals, such as eight or nine year old oxen, the stall feeding is the most correct system. Such animals have already attained a full development of their whole frame. can be expected of them is to lay on flesh.

to their utmost capacity within the shortest time. To do this economically they must be kept warm so that as little of their food as possible may be expended in generating heat. All movement is to be avoided, for that diverts the food from its purpose of forming only flesh and fat. Hence for such cattle, well ventilated, dry stalls are probably the best.

For young cattle, from two to four years old, however, which are not fully matured, and of whose growing qualities it is designed to have the full benefit, as well as of their propensity to fatten, the yarding system seems to be the most preferable as it gives the animal exercise, and that liberty which stall feeding does not afford, and which is more in

accordance with the healthy development of the whole system. The animals require less attendance, and as a general rule look healthier, and appear better in market.

There is a third method of keeping animals for fattening which seems to be adopted by the best judges, though not much as yet in the United States. This is termed *box feeding*. A range of what are termed open boxes are constructed, in which the animals to be fed are penned up loose until taken out to be sold. These *boxes*, as they are termed, are made about ten feet square, and are covered with a shed roof. The troughs for feeding are constructed, so that they can be raised as the accumulation of

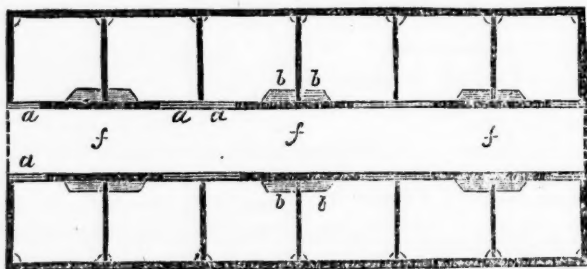


Fig. 1 Groundplan of feeding boxes for cattle, showing the general arrangement and size. *a, a*, the places for gates. *b, b*, Feeding troughs. *f, f*, The passage way between the boxes, wide enough to drive a horse and cart through.

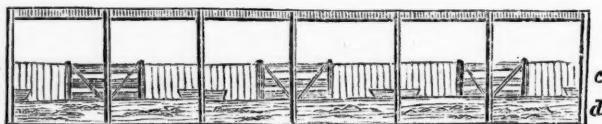


Fig. 2 Section showing the gates posts and partitions confining the cattle to their boxes. *c*, The height of partition. *d*, The depth to which the floor of boxes are dug out below the surface.

manure elevates the animal. That this plan of feeding cattle may be better understood, we give a diagram of a ground plan, of a series of these boxes, which may be put up on any farm, in the most convenient place, to be connected with the supply of feed; or even the sheds already constructed may be turned into boxes for the winter.

Fig. 1 shows the ground plan of a range of boxes on a scale of twenty feet to the inch. Between each range of boxes is a passage way six feet wide. The whole shed is calculated to be about twenty-eight feet in width. The outside is planked up with inch and a half stuff so that each plank can be taken off, and slipped on when wanted. On the inside next the passage is the gate or door *a, a*, into each box, and the feeding box, or trough *b, b*. These gates and the partition along the passage way should be six feet high. It will be noticed that in fig. 2 along the bottom is a dark division marked *d*; this is calculated to be an excavation of two feet beneath the surface, or below the passage way *f, f*. Each box is excavated so that there will be room for the manure to be trodden down and remain undisturbed until wanted for use. The animal when put in the box should generally have about a foot deep of

marsh muck to tread upon. For litter he should have enough of cut straw chaff to keep him perfectly dry. As the feeding goes on, the making and saving of manure is also proceeding in the very best and most economical of all methods. The dry cut straw, soaks up and preserves all the liquid manure, whilst the whole mass is tramped down so solid by the animal that there is no fermentation, and consequently no loss of the soluble particles. It is calculated that in such a box, there will be about eight inches in depth of solid manure made every 30 days, consequently with the twelve inches of muck there would be at the end of five months in each box fifty-two inches deep of solid manure, or each animal might be depended on to make 433 cubic feet, or about $3\frac{1}{2}$ loads. The planking on the outside being put up in such a way that it may be slid out and in, when the manure is to be carted out, the wagon or cart can be backed into each box and the whole loaded up, and driven out with the utmost ease.

It will be seen, therefore that for favoring the cattle, for economy of labor in feeding and for the preservation of manure in the very best manner, box feeding is every way the superior plan, and that it combines the benefits claimed for both stall and

yard feeding, in the shelter and security it gives the animal, and also in the freedom of movement and the making of manure. It is a system that has been tried in great Britain with cattle, hogs and horses and found to succeed admirably, particularly with the first.

The next point to be settled after determining *how* the animals to be fattened or wintered are to be kept, is to select and determine whether the *whole* or *only* a part of the stock shall be retained; and this will depend altogether on the quantity of material there is on hand to be used during the winter months in manufacturing beef, mutton and pork, and in sustaining the dairy and working stock of the farm.

Every farmer who keeps stock has on hand in the fall young animals of several degrees of growth, as well as those necessary to perform the labor, and furnish supplies of dairy produce. If we take for example the stock on a farm of 160 acres, which is about the size of the greatest number of farms in the State, we will generally find that for work and the dairy as well as for market there is required, nearly as follows:

- 8 horses, of which one or two may be brood mares.
- 1 pair of aged oxen, to be relied upon for heavy work.
- 1 pair of three year old oxen, to be called upon in all busy times, and for light work.
- 6 head of milch cows and heifers, ranging from three to six or seven years of age.
- 1 good brood sow, with her fall litter.
- 100 ewes for wool and breeding purposes.

This enumerates nearly the stock to be maintained steadily for the purpose of keeping up the farm to a fair limit of productiveness. But besides this there is other stock which is required to manufacture a large proportion of the products of the farm into material suitable for market, and the number of which must be graduated by the amount of feeding material which the owner of the farm may have on hand. A fair estimate of this kind of stock on such a farm at the commencement of fall, where considerable dependence is placed upon growing wheat each year, for a part of the revenue, would give about the following, in addition to the last enumerated above:

Horses—One young colt, and a two and a three year old.

Cattle—Four calves, 2 heifers and 2 steers: four yearlings, 2 heifers and 2 steers: four two year olds, 2 heifers and 2 steers.

Sheep—Forty head of lambs, and yearling wethers, the increase of the season, some having been sold during the summer, or after shearing time.

Hogs—Ten head of store hogs ranging from ten to fifteen months old.

It will thus be seen that altogether, the stock of an ordinary farm of 160 acres, of which twenty are in wheat, twenty in corn, ten in oats, perhaps ten in buckwheat, and potatoes, forty in wood, and the remainder in hay and grass, would be horses 6, cattle 22, hogs 11, sheep 140. In connection with this enumeration, therefore, two or more questions arise.

The first is, Is there food enough so carry over the whole of this stock in a growing condition until grass is fit for pasture next spring? Should the answer be, yes and more; then arises the question, shall the surplus food be sold, or shall stock be purchased and fattened upon it? Should the answer be that there is just enough to carry this stock over, and none to spare; there is still another consideration, would it be more profitable to feed up and sell a portion of my own young stock, and at the same time buy a few head to put with them, the *labor* of feeding our own and the purchased stock for the first hundred days of the winter costing no more, than what feeding my own would come to? It will at once be seen that to arrive at correct conclusions upon this point, a farmer must have a good knowledge of the market and its chances and changes. The answer to the first question may be, that there is not food enough to keep in fattening or growing condition, the whole of the stock above enumerated, then comes the second question, Which of our stock shall we select to fatten? which to sell as it is? and which will be most profitable to keep? In considering these questions, the following leading principles should be borne in mind: After an animal has passed maturity, the cost of keeping it from deterioration is equal to the amount which would be expended in keeping a young animal in full growth. As an instance of this, and for purposes of comparison, we cite the growth of the heifer mentioned in our notice of the stock of Mr. Sly of Plymouth which gained in less than three months 300 pounds, and yet when we saw the heifer she was not fat nor even in high condition. There was as much weight gained by growth as there was by increase of flesh. So well are the best feeders aware of the correctness of the principle, that when they wish to fatten animals, with a design to get the greatest returns within the shortest period, steers are selected ranging from two to four years old. Those animals which Mr. Lyndon of Canton, in this state, has fattened up to large weights within a short period, have always been under maturity, and he has consequently got the profits of his feed as much from the growth of the animal, throughout its whole system, as from its capacity to lay on fat. It should therefore be the business of the farmer to keep no animal to fatten, that is not under the age of maturity, if he would have the full profits of which his stock is capable.

It may sometimes be advisable to sell the young stock, and to purchase older, especially where there are quantities of feed on hand better fitted to fatten than to promote growth. It is then advisable to part with the yearlings and two year olds, and to purchase well grown three and four year olds. This might be the right course, where there is a large stock of bran, shorts, oats and corn, with but a light proportion of hay, straw and cornstalks.

On the contrary, where the stock grower, has a large amount of pasture for next season's use; and where he would have to purchase nearly all his grain, but had on hand large quantities of hay, made either from clover, timothy or the marsh grasses, it would be evident that to attempt to keep up animals to fatten, where he had all his grain to purchase, would be unprofitable, and that his most prudent plan is to keep as many young and growing cattle as possible, and all animals that have arrived at their full development of bone and muscle, should be parted with before winter sets in. No profit is to be made by keeping them. The farmer who has his grain to buy cannot increase their weight and pay for his own labor at the same time. By his purchase of the grain he has already paid for some one else's labor, and this amount has already swallowed the profit on the fat. All he can do is to get his profit out of the growth of the animal.

In selecting animals to keep, therefore, something will depend upon the condition of the farm, and the kind of food which is on hand, as well as the quantity.

The kind of stock to keep.

Another general principle to be followed in selecting the animals to be kept, is to choose the best, either for breeding or for fattening purposes. If fattening material is plenty, it is not advisable to sell even at good prices the animals which will best perform the work of manufacturing straw, hay, bran and corn into beef, tallow, mutton, wool or pork. The marks of a thrifty animal are usually so manifest, that when once they are known, and well engrained on the mind they are not readily forgotten. In selecting young cattle, attention should be paid to the head, it should be fine, and somewhat pointed, the forehead rather broad, with horns light, smooth, of clean color; white horns with dark tips are not objectionable, but much black is not often found in the horns of steers or heifers that show a propensity to lay on fat. The ears should be thin, almost transparent enough for the light to be seen through of a rich tawny color inside. In some white cattle, the ear will be found of a deep yellow color like that of the richest butter; it will be found that this is accompanied by a ring of the same hue round the eye, and also that the nose is well colored, the skin underneath the ham will also be found to have this peculiarity no matter what may be the color of the animal. The eye should be remarked particularly, it should be quiet and mild in expression without being dull or sleepy. The head should be held up, and carried easily. In heifers reserved for milk it is well to look for a thin neck, in a heifer designed to be fattened, a very thin neck is not desirable. In both heifer and steer, it should be nearly straight with the shoulder. The chest and shoulder should be deep, and the brisket full, with the chest of a

good breadth. The shoulder should be broad, supported on an arm that tapers to the knee, but large round and muscular. The plate of shoulder behind ought to be well covered with muscle. The body behind the shoulder should be deep, but round, and full and well muscled where the shoulders join the ribs, with a good expansion of the back at this point. The body should carry its depth well back to the flank, with the back even and level, and the ribs coming out horizontally from the back bone. When the ribs begin to slope down as they spring from the back, the animal is slabsided, and carries this peculiarity forward to the chest, which is thin, and will not permit the animal to have a good constitution. The loin should be broad, and the hips should be carried out in proportion with the back and ribs, not peaked, as they may be found very often, with great breadth, and the points at the tail sharp. On the contrary these points of the hips should be rounded, and even where the animal is in poor condition, the muscles should fill up the hollows formed by the pelvis and haunch bones, and there should be evidence of the existence of cellular tissue on the points where the muscles are connected with the bones. Where these are wanting the animal when poor looks pointed, and every prominent bone sticks out at a sharp angle. The buttock wants to be carried down full to the hock on the hinder part of the leg, and on the front side the muscle should show a round broad development. Where this point is not well developed, it will be found that the hind quarter is thin, badly shaped, and that the flank is high. The bone of the animal should be fine in proportion to its size. The leg or cannon bone, should be short compact, neat and fine. It is the same bone in the neat stock as that which forms the foot in the human body, and every one knows how much a neat, short well turned foot is the sign of a well proportioned body in either man or woman, and gives elasticity and grace to the carriage. With fine short metacarpal and metatarsal bones, there will generally be found a small head, neat horns, and a well developed chest, with a rounded body. Lastly, the hide of the animal should be loose when the hand is put upon it, the surface seems to yield as if too tender to sustain the pressure; when the hand moves the skin, it seems to float on the rich soft coating which intervenes between the flesh and the cuticle. The hide itself is not thin; in young animals it will naturally be more tender to the touch, but this tenderness should not be mistaken for richness of quality. There should be substance, and when the skin is pinched up between the finger and thumb, there will be found a good deal of substance, the two layers of skin will not feel as though they were a fold of fine broad cloth or thick silk, but a fold of fine velvet, with the nap turned inside. The hair on such a hide is soft like fur almost, and when the

fingers are run through it, it is soft and pleasant to the touch as the richest tresses of a Spanish maiden. The best sample of such a hide in this state, is that of Orpheus, the young bull belonging to J. B. Crippen of Coldwater. The nearest approach to this was the hide of a magnificent shorthorn cow named "Cannie," imported by R. A. Alexander, of Kentucky, and which we examined at the National Fair at Louisville. She was a model, and took the first prize at the great show at Carlisle, England, in 1855. Next to her was a bull named "Elhakim," a red roan, of remarkable properties, but not generally so fine an animal as Sirius, the premium bull of the United States show, whose hide was thinner than that of Elhakim, and finer in the hair, but lacked substance. He did not handle so well as those above named.

On the subject of feeding, we shall have more to say next month.

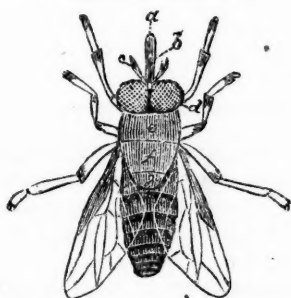


Fig. 1. The *Tabanus bovinus*, natural size.

a, proboscis; b, upper lip; c, antennae; d, compound eyes.

The *Tabanus Bovinus*.

The *Tabanus bovinus*, or Ox fly, attains an unusually large size in this country; and if its power of doing mischief be commensurate with its dimensions, it must greatly transcend its European relations.

A specimen of this insect lately came into our possession, and we give its portrait (fig. 1) of exact size: a few particulars regarding it may prove interesting to the readers of the *Farmer*.

The *Tabani* stand at the head of a very formidable family of two-winged flies; like all the individuals of the class *Diptera*, from (*dis*, two; and *pteron*, wing,) to which it belongs, it is provided with a mouth formed expressly for obtaining fluid food. In some individuals (*Helophilus tenax*, and others,) the rich syrup of ripe fruit suffices; in others (*Tabani*) the blood of animals is insisted on; while still another group (House-fly and allies) subsist indiscriminately on animal and vegetable fluids.

The *Tabanus* usually infests cattle, and like the bold, predatory mosquito, warns its intended victim of its approach, as if well knowing that escape were impossible. It alights on a portion of the body alike beyond the reach of head or tail, and, obtain-

ing a firm hold of the poor creature's integument, by means of *three* peculiarly formed soles, with which each foot is provided, begins to unfold the several parts of its mouth. This organ consists of a proboscis, fashioned like that of a common housefly, and terminating in a pair of large fleshy lips, a fig. 2; the upper part of this organ contains a deep groove, which receives and protects the *cutting* and other instruments, four in number, and equivalent to the two pairs of jaws of a mandibulate insect; the whole is concealed from view by a long, corneous, triangular plate, which represents the upper lip of other insects (a fig. 3). The pair of instruments analogous to the upper jaws so much resemble the surgical lancet that they



Fig. 2. The fleshy lips of the proboscis of the *Tabanus* magnified. a, the lips; b, valve to the entrance of the oesophagus; c, the rugose (wrinkled) surface.

might be supposed to have formed the model upon which it was constructed, (b, fig. 3). These are first plunged deep into the true skin, through the tough hide of the unfortunate ox; secondly, the underjaws shaped like probes, (c, fig. 3), are inserted into the same wound, to stab and wound the capillary blood vessels, and yield an ample supply of the coveted fluid. This accomplished, the probes are withdrawn and the fleshy lips firmly affixed, by the aid of their rugose under-surface, (c, fig. 2) over the wound, and rendered perfectly air-tight. During the operations just described, and that of which the description will speedily follow, the head requires to have its gravity (weight) relieved, and to be supported. For this special purpose the maxillary palpi, are marvelously modified. In all other insects the terminal joint of such instruments is usually attenuated — the smallest, and finest of the series of joints forming the palpus. But here on the contrary, the terminal joint is enormously enlarged, and its shape quite peculiar. If a line be drawn from the apex of one, to the same point of the other, it is evident at a glance that it will touch these organs all the way till it reach the rounded portion springing from the joint below. This figure was made from the mouth of an English *Tabanus*, because of its superior transparency; the American *Tabanus* is more than as large again, and proportionally heavier; the palpi

belonging to it are larger, thinner, and much flatter, to enable them to fulfill the purpose for which they were designed. Now what is this purpose?

They tell their own tale; they are designed as arms to support the head, during the somewhat lengthy operation of feeding. What a long, beautifully flat, admirable surface is provided for this all-important function!

It is contrary to the capability of the stomach of any animal either to *kill* or *digest* living matter, be it animal or vegetable. The caterpillar that consumes the leaf of a living plant—itsself vital—dare not entrust it to the stomach, without recourse to the

chemical aid of a peculiar and most important fluid, to destroy, at the moment of contact, its living principle; this fluid is the saliva. Saliva is poured into the wound abundantly, for the two-fold purpose of killing the living blood, and mechanically diluting it, so that it may be readily pumped up.

To effect this latter object, all the two-winged flies, together with bees and their allies, (*Hymenopterous insects*), possess a peculiar organ called the *pumping stomach*. This stomach directly communicates with the fleshy lips by means of a tube which passes from the one organ to the other; it (the pumping stomach) contains only a little air. When

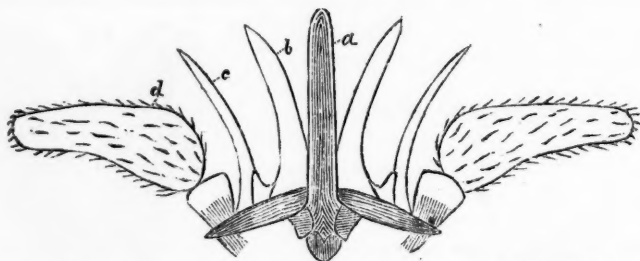


Fig. 3. The jaws. *a*, the upper lip; *b*, the lancet-shaped upper jaws; *c*, the maxillary palpi (feelers of the under jaws).

the pressure of the muscles of the body be taken off, the air contained in the pumping stomach becomes rarefied; the stomach expands, the tube connected with the mouth is exhausted, and a rush of blood up the tube is the immediate consequence. It is not allowed, however, to enter the pumping stomach, for this would be fatal to the insect; there is, therefore, a tube nearly at right angles to that connecting the mouth to the pumping stomach, the other end of which is connected to the crop, and at the instant the pumping stomach contracts, (as it does alternately,) the blood is driven through this short tube into the proper receptacle for it.

Hence it will appear that there is no continuous flow of blood, but that the stream is interrupted; first, there is action; then no action; action again, succeeded by no action; and on this principle all insects, with a suetorial mouth, obtain their food.

But what occasions the intense agony the poor cattle evidently suffer from the bite of this insect? Why do they tremble, and run wild with fear, only at the sound of its hated voice? Do they flinch from the mechanical injury of those terrible lancets and formidable probes? Certainly not; the wounds inflicted by them are of the least importance; it is to the inoculation of the poisonous saliva that all their pain and suffering is due. Like their kindred, the predaceous blood-sucking insects, they feed in a hurry; it is their object to dilute and kill as much blood as they require for a meal, and to make sure of this, they kill much more than they want, and the large tumors which result from their bite sufficiently testify to the potency of the poison. So far as

we know, the saliva of all animals is a more or less virulent poison, by inoculation, to the rest; if a mosquito were as large as a dog the probability is that its bite would prove as quickly and certainly fatal as the bite of a rattlesnake.

The only remedy for the bite of this, as well as other predacious insects, and which applies no less to the sting of the bee, wasp, hornet, &c., is different of application, as it requires to be used the instant the insect quits his victim, namely, Liquor Potasse, this neutralises the poison. But the wound so soon closes up that it is not easy to be in time.

I have frequently neutralised mosquito bites in this way, the remedy being at hand. H. G.

Corn and Corn Fodder.

In spite of the lateness of the planting, and forebodings of those who had given up all hope of a corn crop the warm weather of September has brought this important crop through so far, and it promises to give a fair yield. Of the grain itself we have nothing to say at present. We shall treat principally of the best modes of preserving the stalks, and making the best use of them. An acre will yield from one to three tons of stalks, according to the quality of the corn, and the luxuriance of growth. The field that grows corn from ten to twelve feet high will certainly grow more than the same number of acres where the corn is not over six or eight feet in height. We believe it is pretty well settled, that nothing is to be made by topping corn, but that the right plan to harvest corn is to cut it off as close as may be to the roots. For the purpose of rendering

the fodder of the best quality, as many hills as can be conveniently got together should be put in each "shuck." The larger they are the better, for they will stand long enough in the field to cure and the turning of them to take off the ears, exposes them to the air for curing as much as spreading out hay, or the loading and unloading of it.

When the ears are renewed the stalks, if not taken into the barn, should be immediately stacked. These stacks ought not to be made of stalks alone, but should be composed of layers of oat straw, or if there be no oat straw there is probably some of wheat or barley, alternate with the layers of stalks. Each layer of stalks, which may be a wagon load should have at least four quarts of salt, with a handful of lime strewed over it. This will keep them sweet, and prevent them from sweating and moulding, and the stock will eat them much cleaner and more greedily, especially where they are fed without cutting. The stacks of cornstalks should be thatched, and as carefully protected from the snow and rain as hay. They should be built so as to keep out the wet, and when once opened a whole stack should be at once hurried under cover. By pushing this system, the stock of the farm will get the whole benefit of one of the best crops we have and the farmer himself will be able to make more beef, more mutton, and more wool off an acre than he can otherwise. The mixing of the cornstalks, with straw when in a somewhat green state, as they ought to be when first brought out of the field to be stocked, renders the straw more palatable to the cattle also, at least it will be found that they eat it better. The sprinkling of salt plentifully on the cornstalks, has the effect of keeping them from heating, and at the same time, the dampness engendered in the stack dissolves it, and it also makes the whole mass better relished by the animals. That lime has the same effect, we need only point to the experience detailed in this volume of the *Farmer*, where it has been tried in curing moist clover.

No attempt should be made to feed cornstalks without cutting them, and we believe that where they can be both cut and steamed, they would pay well. One of the best machines for cutting cornstalks well and thoroughly is the one made by Messrs. Felts of Brooklyn, and which we believe is known as the Cummings patent. It cuts them both rapidly and thoroughly, leaving no pieces of stalk uncut. Where the stalks are not needed for food, when cut with straw they make the best litter for stall animals there is, as it absorbs a vast quantity of liquid manure which would otherwise be wasted or evaporated. At this season, even though hay and straw are both plentiful and cheap, the prices of meat point out that the utmost care should be taken to preserve cornstalk fodder.

The National Fair at Louisville.

The great annual exhibition of the United States Agricultural Society was held this year at Louisville during the first week in September. In company with several gentlemen from this state we attended this exhibition for the first time; being desirous of examining what ought to be the best stock in the country, and also of having an opportunity to see the somewhat celebrated horses and cattle of Kentucky, which we supposed would be out in great numbers.

On Monday evening, the first day of the fair, we left Detroit, were whirled rapidly as far as Michigan city, from which place we passed by way of Lafayette and Indianapolis, to Louisville. It was the first time that we had seen the lands of Indiana, and we therefore examined their appearance with much interest. That they were fertile, the magnificent and extensive fields of corn seemed to prove beyond question. Between Michigan City and Lafayette, there is a constant succession of small prairies, not rolling like those of Illinois, but mostly level extents, reaching for miles, belted in with heavy timber, on all sides. Occasionally there are depressions and rising grounds, but in all cases the elevations are slight, and the rivers flow slowly, on a bed but little below the general surface. Fences are few, and fields of clover and timothy are not to be found; the hay being mostly composed of the wild indigenous grasses of the prairies. The impression left on the traveller is that the land as yet is but thinly settled, and that its cultivation is only of the rudest kind. Large barns and stacks of grain were very few; while hardly a first rate orchard was to be seen. There were some of them in fair order; but a first rate bearing orchard we did not see during the journey to Indianapolis, and from New Albany to Michigan City. From Indianapolis to Louisville we travelled in the night, and therefore did not see that part of the state. Indiana as yet holds out many inducements to the agriculturist, and stock grower, which ought not to be over looked before moving farther west.

On our arrival at Louisville we found Michigan fairly represented. From Coldwater, there was present F. V. Smith, A. C. Fisk, J. B. Crippen, W. B. Conant, J. B. Butterworth; from Ypsilanti, Mr. Degarmo and Mr. Alexander; from Plymouth Mr. H. Sly; from Jackson, Mr. A. P. Cook of Brooklyn and Mr. J. D. Olcott of Sandstone; from Oakland Mr. J. Daines of Birmingham. Mr. Crippen took down to this exhibition Green Mountain Blackhawk and two of his colts, Mr. Conant had a bay trotting gelding, and Mr. Butterworth had a matched pair of handsome light bay carriage horses, Mr. Olcott had some pens of French Merinos, and Mr Daines had his celebrated tile machine. All drew first premiums

except the matched horses, which came in the class under sixteen hands, and on horses it was not possible to get many premiums outside of Kentucky, with Kentucky taste as the standard by which the judges were to be guided.

The grounds were about four miles from Louisville, on the line of the Lexington and Frankfort railway, and were admirably adapted for the purpose of an agricultural exhibition. They contained about forty acres. In the centre was a large amphitheatre with seats roofed over, sufficient to accommodate from eight to ten thousand persons. These seats surrounded the ring into which all the animals were led to be inspected by the judges. The judges had an apartment to themselves whence they were called as the several classes were brought forward. No person was allowed to approach the judges' stand, which stood in the middle of the ring, except the marshals who preserved order. During every day of the fair this immense amphitheatre was crowded with spectators. On the outside of this amphitheatre were stalls with gates and shelves. In these many of the persons who came from a distance, and brought their provisions with them, spread out their repasts, during the recesses at noon, and with true Kentucky hospitality invited all who chose to partake of the good cheer they had provided. Others had their table cloths spread out under the groves of trees, and enjoyed the pic nic as if they were used to it. For the invited guests long tables were spread under a fine grove of trees. To the right of the entrance from the road, was a long and wide shed for the machinery, and for driving which a steam engine and pulleys had been fitted up with much care. Further to the right was found a small portable steam engine, driving thrashing machines, for the trial of which stacks of wheat had been provided, and at right angles with this there was a large tent under which were displayed the numerous agricultural implements. At some distance from this tent and next to the amphitheatre, was a round wooden structure, well lighted, with a wide second story gallery on the inside. This was the Floral Hall. At the farther side of the fair grounds were erected ranges of stalls for the horses, cattle and live stock, and still further back, in a hollow shaded with trees, were the pens for sheep and hogs. The arrangements of stalls though convenient and the best for the cattle and horses, hid them from view, and did not give as fair or as full an opportunity for examination and comparison as we could have wished for all. But the herdsmen who were in attendance were very attentive, and on making known our name and business, they afforded us every opportunity which we could desire. This was particularly the case with Mr. Alexander's herd, which was in charge of Mr. John Patton, a Scotchman, to whom we are much indebted for giving us and the

friends who accompanied us, every privilege we asked to examine and re-examine this superior stock of Shorthorns and Ayrshires.

The grounds and buildings are the property of the South Western Agricultural Society and are well got up; we ought to have the same kind near this city for the accommodation of the State fair, and we believe that with a little exertion it could be managed.

HORSES AND THEIR TRIALS.

The show of horses formed the chief feature of this exhibition, and certainly it must be owned that in this department Kentucky put her best foot foremost. The horses shown were mostly large, of fine growth, some of them might be called leggy, showing a great deal of blood. The trotting horses of Kentucky were indifferent, the trotting stock mostly coming from other states. In this class Mr. J. B. Crippen, of this state, took the first premium, in what is not considered extraordinary fast time. But we must say that it is much better than it looks. In the first place the course is only a half mile one, but twice round it makes a *mile and sixteen rods*. In the next place it is one of the worst tracks in the country, being very uneven, with short turns, and even in some of these turns, the roadway has a slope to the outside, instead of being the reverse. The consequence is that no driver can pass these turns without danger of an overturn, when at speed, consequently he has to bring his horse down almost to a walk. Add to this that each horse drew three hundred pound wagons, and it will be admitted that 2.58 the shortest time made was better than 2.40 in harness on the Detroit course. Against Mr. Crippen entered a Messenger horse from Long Island named Washington; a horse named Young Hamiltonian from Vermont, and two or three others of Morgan stock. On this trial of speed, Mr. Crippen's horse handsomely sustained the reputation which he has made in Michigan, though he had not been twenty-four hours off a railroad which nearly lamed him beyond remedy. In a trial of speed with geldings, W. B. Conant's bay horse "George," not only took the premium the first day, but in a sweepstakes premium offered on Thursday, he again came out victor. In the trotting classes it will be noted that *time* was the judge, and the fact that Michigan was bearing off the honors gave rise to much speculation as to whether she would have much other chance given her.

Probably no decision made called out so much criticism as the decision on the stallions of general utility. There were twenty four of them entered, the first wave of the marshal's whip reduced the number to fifteen; four more were taken out, and amongst the eleven left were Green Mountain Black Hawk, and a most magnificent black horse named Ticonderoga, from Baltimore. After some discussion,

all were ruled out but four, and of these four two of them certainly were inferior in action, style, form and every point that makes a horse of value, to some of those which had been sent out, and none of them were equal to Ticonderoga in general appearance, and style, though equalling him in form. Of the four that remained, all were in about the same condition; but one was a peculiarly large dark bay, with a great deal of the Highlander blood in him, he was passed over, and the first premium given to one which equalled him in style, though not in general symmetry nor action, and the second was given to a light bay named Sir William, a horse with thick shoulders, inferior form, whose head his owner was holding up steadily by sawing the bit through his mouth all the time he was on the ground. Of the four left he certainly was inferior in every point in the opinion of every horseman outside the ring. The grounds on which he obtained the second premium are unknown.

In no point are the horses of Kentucky more distinguished from ours than in their early maturity both of size and training. Yearling colts of both sexes, were shown equal in size to the average of three year olds, whilst their best two and three year olds had all the size, and were as well broken as five or six year olds with us. Many would probably think this the result of a forcing process, but we impute it to climate as much as to care. In Kentucky there are not over two months in the year during which animals need shelter, and consequently they are growing nearly the whole twelve months. With us colts have the run of the barnyard during the winter, but their feed is inferior, and consequently their growth is limited to about six months of each year when they have food and exercise sufficient to develop their powers. Many of the saddle and carriage horses shown at this fair were close upon or over sixteen hands high, were perfectly broken to harness or the saddle, and under the latter had five or six different paces to which they changed at the option of the rider. All showed careful training in the colt.

The blood stock of course was the best of its kind in the Union. The imported horse Sovereign was awarded the first premium by the committee, but we see that it has reconsidered its judgment, and has given the first premium to Seythian, a later importation made by Mr. Alexander. Putting the horses on their merits, we doubt very much whether the committee have amended their decision by the change. Sovereign is a large, dark colored, well proportioned horse, with a greater range of body a deeper and fuller loin, fuller buttocks, as good limbs, and a chest head and neck better than those of Seythian. The latter is a light bay with three white feet, is not so large as Sovereign, has a full deep chest, but is not so rangy in the body, and his hind quar-

ters though more wiry in appearance, have not the strength which Sovereign displays. The head and ears are very fine, and carried more erect, he shows somewhat more shoulder in proportion than Sovereign does, but he is also lighter behind. It may be good policy to change the blue ribbon from Sovereign to Seythian, we beg leave however to doubt the correctness of the judgment that dictated it. No horse shown attracted more attention than Wagner, the renowned conqueror of Grey Eagle. He is now 26 years old, but yet shows in every motion all the fire, and that indomitable spirit which made him the first of four milers in his day. He is medium sized, of a dun sorrel color, with a coat that glistened in the sun like burnished steel. His whole muscular development was of the highest order, with limbs fine, hard, nervous, and perfect in shape. His head ears and nostrils, had a great deal of the Arab in them. For a sire of racers, he was probably superior as a stock getter to any horse on the ground. But for a blood horse such as would improve Michigan stock give us Sovereign.

No part of the exhibition was more worthy of attention than the show of mules. These animals were probably the best of their kind in the world. Generally dark brown in color, with their tails trimmed to a tuft, and their manes cropped so as to give their necks a beautiful arched curve, with a height reaching sixteen hands and over, (one of them was seventeen hands high) they deserved and attracted general attention. Mr. W. D. Duncan of Clarke county, Ky., drove a most beautiful matched pair which he valued at \$500. These animals are bred from the very best mares, and prove very profitable, as they are easily taken care of, easily reared, and there is always a ready sale for them to go south. With the large blood mares common to Kentucky, we are not surprised at the superior excellence of this state in this kind of stock.

THE CATTLE.

The show of cattle for this section of the United States was very much inferior in number to what we expected to find here. We had hoped to see a large number from the various herds of Kentucky, Indiana and Ohio, but while the two latter states turned out tolerably well, the men of Kentucky seem to have come to the conclusion that if Mr. Alexander was to be permitted to enter his herd, there was no use in trying to compete, so they gave it up, and did not come. Many of the best informed, stated to us that the State Fair to be held at Lexington the next week, would afford a much better opportunity of forming an opinion as to the general value of the stock of the state, both with regard to cattle and horses, than this national fair, and warm invitations were extended to us to remain and witness it. But urgent duties at home rendered it impossible to accept them. There were present good specimens of the

Shorthorns, Herefords Devons, Ayrshires, Alderney and Jersey breeds, so that there were ample opportunities to compare and examine.

THE SHORTHORNS.—Neither in aged bulls nor cows have we any in this state which will compare with the Shorthorns which took the first premiums at this exhibition. We have a few which will approach some of the second prize animals in quality, size, and general appearance. We do not say this to depreciate what stock we have, but that our stock breeders may understand the position in which their animals would be placed when judged by comparison with the highest standard. The bull Sirius, to which was awarded the first premium, is not a perfect animal, but he would be hard to beat when taken altogether. In size he is right, being not too high. His legs are short but not disproportionately so, and thus carry his body near to the ground; they are not too fine, so that he seems spindle shanked, but clean well shaped, and fine without appearing light. His feet are well shaped, well set, and small, the hoofs being a good rich healthy color, and so are his horns which are fine, flat, and light. When standing behind him, his buttocks and hips are square, and his legs stand apart a considerable distance, at the twist the muscle is full, and the gambrel broad and rounded. His back is square, level, and though in high condition, there was an evenness over its whole surface which showed perfection in breeding. His shoulder was full, and there was breadth as well as depth in the body immediately behind the blade, with a fullness of flesh which made the crops as perfect as those of a Devon, and rounded off that portion of the fore quarter which in Shorthorns frequently seems thin and flat, besides covering the blade with meat. The neck is short, and rounded up so that the crest is sufficiently marked to give style to the carriage of the head, without appearing coarse. The head is fine pointed, clean under the chops, of a size well proportioned to his general appearance, with a clean fair nose, a bright mild eye, a forehead broad and smooth, the hair fine, and curling close to the horns. The ears were small, delicate, and richly furred. The tail was long fine, sweeping at the extremity, and came out at the root straight and level. The hide was rather thin, the hair was good however. He was unquestionably the best bull on exhibition. He is five years old, and weighs over 2700 pounds. A bull of the same herd, named Elhakim, had a better hide, a fuller crop, and a longer and heavier hip than Sirius, but his hair was not as fine, nor was his general symmetry as perfect, although we believe his stock would be quicker growing animals and more apt to put on flesh rapidly. He was deep red in color, and a massive beast. We ought to have this animal in Michigan. His sire was Grand Duke. Another remarkable bull of this herd was Grand Turk 2d, only 16 months old,

a son of the Grand Turk, the largest bull ever brought into the United States, out of Francis Fairfax. He was white in color, and in size seemed large enough to weigh between 1800 and 2000 pounds.

We have nothing to show in Michigan like the cows and heifers of this herd. "Forget-me-not," the first premium, had never been fed a mouthful of grain until within two weeks of the fair; for size, proportion, and condition she was wonderful, yet she did not handle as well as a cow called "Cannie," imported lately, and which was awarded a first premium in her class at the Royal English Exhibition at Carlisle in 1855. Her hide was one of the best we ever put fingers upon. The two Mazurka heifers, twins, only 21 months old, and weighing 1800 pounds each, were models, and it was not surprising that they obtained the 1st and 2d prizes as yearlings.

Mr. Corwin's Crusader, was awarded the 2d premium. He is a very fine animal and has many good points. He is white, and has raised some remarkably good stock. Mr. Pierce of Ohio was also present with some very fine stock, amongst which was a young bull which he considered would turn out a superior animal to Sirloin when of the same age. He is only a calf as yet however. We of course can only glance at a few of the animals which seemed to us as most notable for excellence; there were many others from the herds of various breeders in Indiana, Ohio and Kentucky, but it would be only a repetition of names to mention them.

The fat cattle shown were such as we seldom see, and even our friend Lyndon might have found an animal or two that would have tested his utmost skill to surpass. Mr. Shelby of Kentucky had five head, of which the lightest would over go 2500, and the heaviest must have over gone 3000 pounds. He was a moving mass of beef, or which were spread hummocks of fat so great that every movement of his limbs seemed to be impeded. A heifer three years old belonging to Isaac Shelby must have weighed 2500. She had a breadth of back which would seem impossible to obtain in an animal of her age.

The Herefords were well represented, by Messrs. Sotham of New York, and Humphreys and Astor of Lorain county, Ohio. This is a breed not yet tried in this State, although for our northern timber lands it is better adapted than the Shorthorns.

The Devons were in no wise superior to those shown at our own state fairs. The principal prize was taken by Mr. Charles Ely of Elyria, Ohio, who now owns the stock formerly brought into this state by F. V. Smith of Coldwater.

The Ayrshires were well represented, and the animals shown were good specimens of the breed. In these Mr. Alexander again stood among the first.

Michigan had no cattle on the ground with which to compete for the prizes.

The sheep of Michigan were well represented by a lot of French Merinos and a Spanish buck, entered by J. D. Olcott of Sandstone, in Jackson county. As the best representatives of the fine woolled races on the ground, they were awarded a first premium. These sheep were originally from the Patterson stock of Chataque county, New York. The Cotswolds and Southdowns were not numerous, but they were fairly represented, and the pens shown were superior in quality. Amongst the long woolled races, Mr. R. W. Scott of Kentucky, exhibited some pens of his Kentucky sheep, which compared favorably with the Cotswolds as to size and quality.

The hogs presented no remarkable points or qualities, nor were they present in numbers or varieties sufficient to attract much notice. In imitation of the English classification, the society has separated hogs into "large" and "small" breeds. This classification is defective and means nothing with us. If we wish to encourage the raising of pure races of hogs with good points, the breed should be specified. Societies might as well, and with more propriety offer premiums for large and small breeds of domestic fowls. We consider hogs of as much importance as poultry, and there is no reason why premiums should not be offered for the best Yorkshire, Berkshire or Leicesters, as well as to mix them all up under the term "Large Breed." With fowl they are particular to note the large breeds and to separate them under their distinctive heads. Crosses are not prized. Ought not the same principle to be carried out with swine? This is toadyism to the customs of another country entirely unsuited to ours. We hope it will be amended.

The exhibition of fruits was not superior to some we have had in this state. There were collections of grapes which had been sent from Boston, which were well worth noting. Apples were in good variety, but not extraordinary; many specimens were indifferently grown. Pears were not presented in large numbers. Some of the floral ornaments of the hall were well got up, but the manufacturing interests did not avail themselves of the opportunity to display their wares, and the upper gallery was not filled.

In the implement department we saw no straw cutter superior in its operation to that manufactured by Messrs. Felts and Brother of Brooklyn in this State. There was a large number of implements tried, together with the plows, such as harrows, seed sowers, cultivators and horse hoes. Amongst the new tools we noted the circular harrow as something peculiar. This harrow is constructed like a wheel, and the teeth set at right angles with the rim. The draft is attached to the axle of the wheel by a cross bar, which, as the horses pull, causes the harrow to turn round. The circular motion of the teeth grinds up the earth very fine, and leaves it well pulverized and prepared for seed.

In the machine department, Michigan was represented by Mr. John Daines of Birmingham, who had his tile machine on the ground, with the material to make tiles. He was kept busy making tiles during the day, and answering questions respecting it. He could have sold several machines, if he had had them on the ground. The committee awarded him a silver medal.

During the fair the President announced the decision of the judges on the great trial of harvesting machines at Syracuse, which is as follows:

AWARDS FOR REAPERS.

First premium, C. H. McCormick, Chicago, Ill., gold medal and diploma.

Second premium, W. Atwood, Hoosac Falls, N. Y., silver medal.

Third premium, Warder, Brokaw & Child, Springfield, O., bronze medal.

Diploma, Jonathan Haines, Pekin, Ill., for Illinois Harvester.

AWARDS TO COMBINED MACHINES.

First premium, W. Atwood, Hoosac Falls, N. Y., for J. H. Manny's machine with Wood's improvement, gold medal and diploma.

Second premium, D. M. Osborne, Buffalo, N. Y., silver medal.

Third premium, Warder, Brokaw & Child, Springfield, Ohio.

HAY OR COTTON PRESS.

First premium, W. Deering & Co., Albany, N. Y., for Stationary Parallel Hay Press, silver medal and diploma.

First premium, to same for Portable Parallel Hay Press, silver medal and diploma.

GRAIN CRADLES.

First premium, T. H. Robinson, Ontario county, N. Y., bronze medal.

SCYTHE SNATHES.

First premium, Frost, Burke & Co., Springfield, Ohio, bronze medal.

HAY RAKES.

Jno. Hatch & Co., N. Y., Superior Hay Rakes, certificate of merit.

The judges had not been able to make up a decision as to the merits of the best mowing machines and hence that point is withheld as yet.

As an exhibition representing the agricultural productions of the United States, we think the fair a failure. As to its success in a pecuniary consideration it probably turned out well. We shall not at present point out all the reasons why it was a failure, but we think the society could exert little influence through this exhibition beyond that of a mediocre state fair. The point where it was held was as good as any that could be selected in the south western states. But the people most interested did not respond, except locally, and even then but partially. One man's large wealth, and great resources enabled

him to frighten off all competition. He was right, his stock was the best of its kind, and his triumph was honorable alike to himself and his state and the whole nation. Still he had not the opportunity of competing with his *equals*, and this is what the society aims to reach. The time of holding the fair was too early if held annually. The exhibition of the United States Society should be a court of last resort, to which should come the winners of the first premiums at the state fairs to measure their strength with each other and all who would compete with these winners for the first positions as agriculturists. We are even doubtful about the propriety of holding these exhibitions every year. For a state or a county an annual exhibition seems appropriate enough, but to exert a supervisory influence upon them, the United States Society must not descend to the same level, and come in competition with them. Probably it would be better now that the society has been initiated and found useful, to hold its exhibitions not oftener than once in two years; and then to select such a central point as all could reach with ease. If it aspire to exert an influence which shall elevate agriculture, and be beneficial to states and communities, it must step out of the arena of competition with lesser bodies, which it is now in, and hold a more dignified position. We know of no way by which this can be done than by making its term an Olympiad to which contestants shall look forward from all quarters with eagerness equal to the esteem in which its honors should be held.

Our Note Book.

On the 10th of August last, we were at the farm of T. T. Lyon, the well known contributor to the Horticultural Department of the *Farmer*. His orchard of which he has an exact plan, and in which every tree is laid down with the name, is on a very stony and rough piece of land, which it has taken some time to get into working order. His trees had suffered somewhat from the effect of the preceeding winters, but not so severely as some orchards on less stony and lower ground. We noticed a few fine nectarines, trained against the wall of his house, which had fruited well. His latest cherries were just out of bearing, but we had an excellent opportunity of testing the quality of his Fastolf and Antwerp raspberries and currants, which had not yet been denuded of their fruit. His crop of winter apples will be a valuable one.

May & Co's Stave Factory—We stopped a short time at Messrs May & Co's stave and barrel factory. They had got their cooper shop in operation since our first visit, and were busy filling orders from all parts of the west, having received enough both for staves and barrels, to keep their whole force fully employed. Their staves were going by way of the Michigan Central Road to Illinois and Iowa. They

had likewise received a large order just previous to our arrival for barrels for the Lake Superior trade. We say most heartily success to all such enterprises. It is satisfactory to see manufactures of this kind established and building up the country.

Horace Welch's farm.—We paid a short visit to the farm of Horace Welch on the 11th of August, having some business with him. Mr. Welch has a farm of 400 acres in the town of Pittsfield, which he has been located on for more than twenty years. It stretches for a mile and a half along the highway. We found him busy with a Manny's reaper, which he had tried this season for the first. Hitherto he had found it easy enough to procure help sufficient to secure his hay and other crops, but the high prices, to be paid for labor, and a very large extent of land in grain, determined him to purchase a reaper and mower. Here he pointed out a field with about nine acres of it which was so thickly set with stumps that it was thought at first that a mower could not work in it, but after noting the work of four men with scythes for half a day, Mr. Welch's son proposed that the men should cut a swath round each stump so that he could see where they were, and he would take the machine and cut the grass. This was done, and the whole was cut in a single day, without injury to the machine or fatigue to the horses. As Mr. Welch said, "harvesting now did not keep the whole household in an uproar to cook victuals. All the extra feed was given to the horses, while the women folks had as good a time as the rest of us."

French and Spanish Sheep—Mr. Welch keeps a flock of 400 Spanish Merinos. This variety is the favorite with him. From them he clipped this year an average of 5lbs. 2 oz. per head. He does not regard the French with as much favor, and seems to think that our climate is rather severe for them, and that they will not keep up without more care than most farmers are willing to afford them, or think it profitable to give to any sheep. The French sheep are the Leicesters of the fine-wooled breeds, and being artificial, require to be kept up by selection, by crossing, and by protection from the severities of climate, and also by a system of more liberal feeding. So argue their opponents. But the question after all is, do they or do they not pay for this extra attention in breeding, feeding and protection? We should like to have some of our sheep growers give us their figures on this point. Not the profits made by breeding to supply animals to breed from, for that is a distinct part of the business; but a fair comparison of the food consumed by a flock of 100 Spanish weighing 90 pounds each, and the sales of wool and mutton from them during twelve months, with a flock of 100 French weighing 110 to 120 pounds each, would be the only method of testing it, and such an experiment should be undertaken un-

der the auspices of the State Society, and under the charge of a special committee, with an award of a premium liberal enough to make it an object for the most skillful partisans of each to test their opinions by proving which returns the most money from the capital and labor invested in them.

Amongst many sheep farmers throughout the state, there is a strong opinion expressed that Mr. Patterson of Chautauque county, New York, has in some way or other, taken in a great many sheep men and "done them brown" out of considerable sums for sheep which did not turn out as his agents represented them. We have not yet come across one of these men who have been so badly taken in, but we are frequently informed that they are numerous. We have met Mr. Patterson several times, and on one or two occasions informed him of these rumors. He distinctly denied that there was the least foundation for them. He had never sold a sheep that was not just what he represented it to be, and he said he would like to have any one point out a single instance of bad faith on his part towards any of his customers. We believe in justice to all parties, and hence we bring the matter up at this time, that justice may be done to a valuable race of sheep, and also to test the question as to the truth of these rumors. We have diligently sought in our travels, which have been somewhat extensive this season, to meet with one or two of the parties which have bought French sheep at high prices from Mr. Patterson and which have turned out to be worthless, where bred properly and with some regard to correct principles of breeding and crossing.

Scours in Cattle.—S. Lyndon called our attention during a brief stay at his house to the effect which the wet weather, was having upon his grass and cattle. Nearly all of his cattle were suffering from looseness or scours, apparently brought on by the feed which the previous wet and warm weather had caused to grow with great rapidity. The grass being pushed forward too rapidly, it was soft, contained but little nutriment, and had a relaxing effect on the system. One of the simplest remedies for this disease, before it has attained a dangerous or inflammatory state, is to keep the cattle in the yard until the sun is well up, and give them a small feed, say a couple of quarts of dry bran or middlings, before turning them out. Where this has no effect, 2 oz. of powdered chalk, and half a drachm of opium with 2 drachms of powdered gentian root, given once or twice a day, with meal gruel is the best perscription we know, and only timothy hay should be fed out. This acts as a tonic and astringent, without checking the disease too suddenly.

The disease of scours in cattle, seems to be similar to that which affects persons who eat much unripe fruit. The first growth of grass being eaten off, the wet and warm weather had apparently forced a

growth of grass of a weak and immature quality, and which besides containing little nutriment, was not ripened enough to afford a healthy food. This when eaten in great quantities, with no other food to counteract its evil effects, would bring on a disease similar to diarrhea, caused by indulgence in eating largely of unripe fruit, and would naturally be cured by remedies similar in their nature to those employed by physicians in the treatment of human patients.

Stock near Clinton.—From Pittsfield we crossed over to Clinton, being desirous of seeing what the Northern Lenawee stock men were doing. Our friend E. Smith, Esq., an account of whose marsh operations was published in the August number, gave us a hearty welcome. As an example of what he was trying to do, he exhibited a very handsome and well made heifer calf named Jenny, a grade, which when exactly four months old weighed 490 pounds! She was sired by Neptune (1016 A. H. B.) a son of Halton, and her dam was a half blood cow. She had little extra feed, her dam was allowed to give her about half her milk night and morning, and she had the privilege of a piece of pasture that was not of the best description.

Duke was at the farm of John A. Wells, and we drove out there. We found the Deacon busy getting in his wheat, which he considered would not turn out as well as the straw promised. Duke has grown considerably this season, and has become more square and better formed behind. He promises to become a valuable animal, for stock breeders. He is filling up very square, with a fine head and muzzle, a good hide, with the hair a little hard perhaps. He has a good width of chest, and fills well out at the shoulders carrying a straight back, and a fair loin. He must cross well with the stock which is around him, and he will leave his mark in that neighborhood. Mr. Smith purchased from the Messrs. Sly of Plymouth, Beauty, and Bellflower, two three year old heifers, of medium size, red and white in color, and each showing good breeding and excellent, well developed points. They are intended to breed with Duke, and the cross will prove a good one, we feel certain.

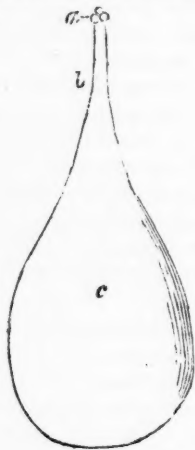
On returning from Deacon Wells' farm, Mr. Smith pointed out the ravages which the hailstorm had committed, and showed us a field of Tobacco, which previous to the storm, was very luxuriant, but it had been literally cut to pieces by the hail. So badly was it injured that Mr. Smith wrote to the owners, who were in Connecticut, and had come up here and hired the ground from him, that they might give up all hope of a crop. This was about three weeks previous to our visit. At that time the tobacco plants had so well recovered, that Mr. Smith had sent men in to hoe the ground and clean it, and he had also written down to Connecticut advising that the tobacco was giving hopes of a fair crop yet. To

show the rapidity of growth of this plant, Mr. Smith exhibited a leaf, which had grown on a stem that had been entirely stripped by the hail, and this leaf measured eighteen inches in length, and about fifteen inches across. We hope to know more about the details of this crop when it is taken off the ground. We are of the opinion that some of our rich swales or well drained marshes would grow this plant well and profitably; especially if the muck was well top dressed with sharp sand, and the lot tile drained, so that no water would remain standing after the heaviest rains. It certainly would be worth a trial, and if successful the crop would amply repay all necessary expenditure. We shall pay some attention to the cultivation of this crop in future numbers.

The Cœnurus Cerebralis.

In the August number of the *Michigan Farmer*, I read with much pleasure the particulars of an editorial visit to Oakland county, and to its farmers. Amongst the latter, Mr. A. L. Johnson, received a visit, and the particulars are given of the circumstances under which he had lately lost a calf; it is to this subject I desire to direct attention.

It is evident to me that the calf died of a disease common to them, to sheep, pigs, rabbits, and even to dogs, known (in England) as the "gid," or "mad staggers." This disease is caused by a parasitic entozoon, always found located, singularly enough, in the substance of the brain; the name of this parasite appears at the head of this article.



The Cœnurus, is one of the most simply organized animals, consisting of a large bag (c) always filled with water, at the end of a long neck (b), the summit of which is provided with suckorial mouths (a), adapted alike to adhesion to the tissues by which it may be surrounded, and for the procuration of nutriment. They are frequently found provided with many heads, which can be retracted within, or protruded without the common cyst.

This Hydatid form is by no means uncommon as a parasite in the animal kingdom and in man, and wherever found, they invariably produce distressing, if not fatal disease. They have no sex, and appear to propagate most abundantly by the mere act of spontaneous division, such as is common to plants.

In a species, afflicting alike humanity, and domestic animals, but still lower in the scale, the *Acephalocyst*, (headless cyst) there is not even a mouth, and this animal cell like its vegetable congeners, lives alone by imbibition; in other words, by the transmission of nutriment through the surface of its integument.

Of course, there can be no cure for the Cœnurus, and the best that can be done is, to terminate the animal's suffering as soon as the "gid" makes its appearance. After death, pass a saw round the skull, and remove the upper part, so as to expose the brain; an animal, like the figure given will be invariably found, and if carefully removed, and put in a bottle with weak spirit, I should now, be glad enough to receive it, for the purpose of instructing others. I have had many such animals, but have given them away until I have none left.

Many Cystoid animals there are closely allied to the Cœnurus, and afflicting alike domestic animals, and man, but their effects are not immediately fatal.

HENRY GOADBY, M. D

The Scott Shingle Machine.

A good many letters have been received by us making inquiries relative to the Scott shingle machine, and it seems that Mr. H. F. Parrish, the agent for the sale of the right in this State has also received a very great number of letters on the same subject. By way of giving a general reply and some information on the subject he has prepared and sent us for publication the following:

R. F. JOHNSTONE, Esq.,—Sir: I hereby ask that you would do me the favor to publish the following account and estimate of what one of the Shingle Machines advertized in your *Farmer* can do. I have lately received a great number of inquiries asking information on various points connected with the manufacture of shingles by the Scott machine and have prepared a statement which will cover the whole of them.

1. What kind of shingles does the machine make? The Shingles are neither rived nor sawed, they are sliced or shaved off the bolt with a powerful knife and lever, which gives them a good smooth surface, better than any sawed shingles can have, and equal to that of a riven shingle. The feeding apparatus of the machine operates with exactness and surety, and each is of the same thickness, if the bolts are only made of the same length.

2. Is the wood steamed, or does it undergo any preparation before being cut into shingles? The bolts are steamed in a common plank steambox such

as any one can attach to a close boiler with a steam pipe. The bolts take from two to three hours to steam them, and the fuel used in the furnace is the waste wood left from the bolts and the trimming of the shingles when they are pointed.

3. From what kinds of wood can shingles be cut? From every kind that grows in the State of Michigan, white oak, black ash, hickory, white wood, bass wood and pine, can all be made into shingles. With the steaming process, and this mode of cutting, shingles can be made from material which has heretofore been used as fire wood. The black ash shingles are probably the most lasting we have, and made by this process, they are equal to the best pine, for covering barns, sheds and dwelling houses.

4. How many shingles can be made in a day, and what power is the best to use? With the steaming box in operation, and located so that there need be little carriage from it to the machine, two men could easily make from 5 to 8 thousand per day. Where it was attached to a railroad horse power like that of Emery's or Wheeler's it would make double that number, and then a man and a boy, could attend it and work it very profitably.

5. What would be the cost of working it per day? The wages of two men per day in the winter season would be \$1.00 each, the work of a pair of horses to drive the machine would be \$2.00 more; the oil, and wear and tear of machinery may be put down at \$1.00; the wood to be cut into shingles would be worth about \$2.00 per cord, and about a cord per day might be used; so that the whole expense of working, placing every thing at its money value, would be \$7 per day. With a horse power the machine would easily average from eight to ten thousand per day, worth in market from eighteen to twenty shilling per M., but even reckoning them at only \$2.00, there would be a return of from \$16 to \$20 for every \$7 or \$8 of cost.

Mr. Editor, I do not know of any machine so simple so easily managed, which will prove a better investment, or which will furnish more profitable and more comfortable work during the coming winter season than this Shingle Machine. It can be worked on a barn floor or in any shed which may be convenient. The horse power and the machine can all be put in twenty feet square, and worked to advantage. Any other queries, I am ready to answer at any time, and to exhibit the machine in operation.

Yours very respectfully,

H. F. PARISEL

Hembranch, September 5, 1857.

Letter From W. R. Prince.

T. T. LYON, — Sir: Having perused your article in *Michigan Farmer* for July. I will explain as to the apple you and others have termed "Virginia Red Streak." This apple is the "English Red Streak," long cultivated in Virginia, it having been

disseminated from that State it obtained the erroneous title you have quoted. Your hints to purchasers of fruit trees urging an examination of the blossoms and gland of the peach trees and the color of the bark and the peculiarities of growth and form of pears and other fruits. By adopting your suggestions they can decide the first season whether the trees received are accurate or not. In the 34th and 36th editions of our Fruit Catalogue we gave the only general list of peach trees with their glands and the color and size of the blossoms that has ever been presented to the world. The lists published by the London Horticultural Society and by some French authors are very limited in comparison.

The establishment by your State of an Agricultural School with a Horticultural department is a most important movement, and will form a basis whence mighty benefits will be derived by your citizens at large. Throughout our wide spread country the march is everywhere "onward," and I cannot anticipate the glorious destiny which awaits her, without an enthusiastic thrill through my veins. The Chinese Potato or *Dioscorea* appears to have been less planted in your State than in some others at the west, but I noticed that Mr. Adair at Detroit had it under cultivation. I have three acres now in the most flourishing condition. You will form some idea of its destiny in our country by perusing the report made by Hon. Henry Meigs, Secretary of American Institute, the present week, comprising statements from two of the great Agricultural Societies of France. I will also send you my address made to the American Institute on the same subject.

Yours.

W. R. PRINCE.

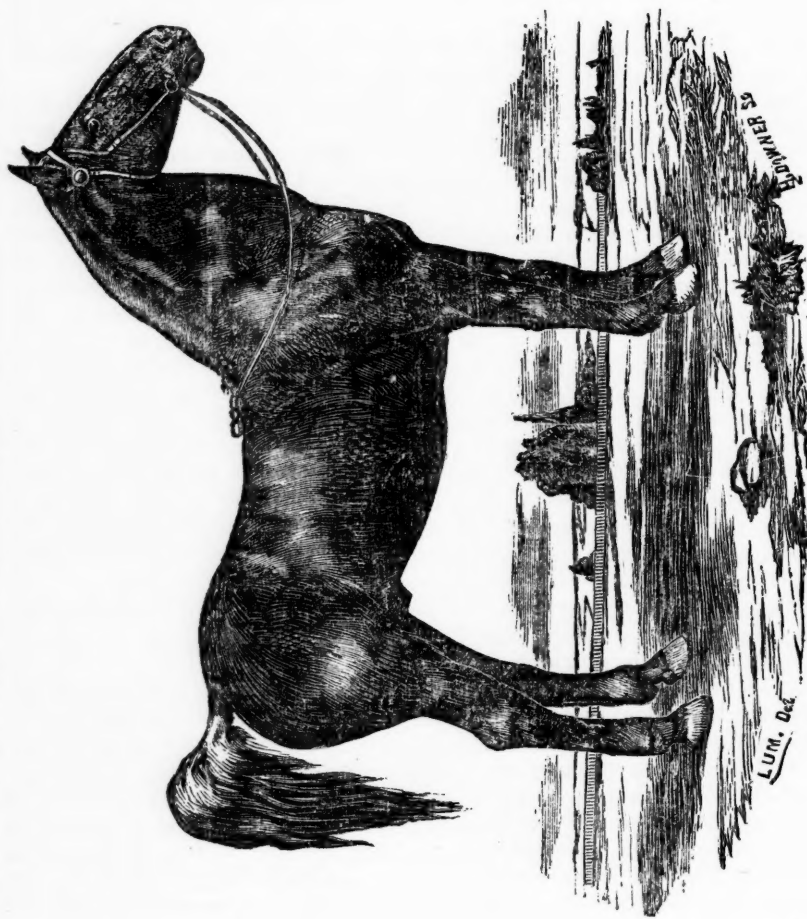
Digging Potatoes.

The potato harvest is greatly facilitated by the use of the plough; and one of the best methods is to commence by back-furrowing between the rows with a double team, running the furrows a little lower than the potatoes in the hill and near enough to roll out a few of them, the remainder of the work is to be performed with the hoe. Try it brother farmers you will find it much ahead of the old back-breaking way that has so much deterred people from raising that quantity they otherwise would. C. HANCOCK.

Albion, Mich., Sept. 21st, 1857.

One session of the State Teacher's Institute will be held at Ionia, October 6th, and at Lansing, October 19. They have have been in session at different places through the State during the month of September.

The original Ribston Pippin apple tree is still in existence at Ribston Park, the property of Thos. W. Abbot, Wetherly, England. The old tree decayed until it was thought at one time it would be lost, but a side shoot sprung out, which has increased to a tree and is considered the old tree.



HAMBLETONIAN.

A Bay Stallion, the property of F. E. Eldred, Esq., of Detroit, kept at his farm near Farmington, Oakland County Michigan.

Hambletonian was sired by George Barner's horse Perry, of Whitehall, Washington Co., N. Y.—he by Signal, out of a Messenger mare. Hambletonian's dam, by Manbrino; grand dam, Bishop's Hambletonian. Hambletonian is 16 1-2 hands, weighs 1150 pounds; possessing fine action, with great powers of endurance; untrained, but shows good evidence of speed, which will be shown to the Judges at the next State Fair. Hambletonian is a beautiful blood bay, black mane, tail and limbs, without a white hair upon him, and for style cannot be excelled by any horse in the State.

Horticultural Department.

Notice.

Every person who desires to be a member of the State Horticultural Society, may become so by the payment of one dollar, which entitles them to a ticket of membership for one year.

Members of the society are privileged to submit their fruits to the fruit committee, for names or classification and to exhibit at the shows, with a free entrance to themselves and families.

All fruits intended for the inspection of the Fruit Committee, should be packed in boxes or jars, in such a manner as to preserve it sound as long as possible. The air should be excluded, and in all cases of the softer fruits, such as plums or peaches, cotton should be employed as the packing material. Where there are several varieties in one package, the local or popular name should be gummed on each fruit. Accompanying each variety, especially where the name is unknown, a sample of the wood and foliage should be sent.

The packages must be sent free of expense to the office of the Secretary, 130 Jefferson Avenue, Detroit.

A meeting of the Fruit Committee will be held at 130 Jefferson Avenue, Detroit, on Tuesday, September 29.

A meeting of the executive committee will be held at the same place on the same day.

By order. R. F. JOHNSTONE, Sec'y.

The Michigan State Horticultural Society.

The call for a convention of fruit growers and all interested in the progress of Horticulture, was responded to very fairly on Tuesday the 8th of September. Quite a number of gentlemen met at Jackson, and took the initiatory steps to perfect an organization. The convention was characterized by harmony of opinion and of action; and it was universally conceded that the time had come when an organization which would act as a guide to public taste in all matters connected with growing the productions of the nursery, the orchard and the garden, was absolutely necessary; that by means of such a society only could the production of new and valuable varieties of fruits, vegetables and plants suitable for our climate, be stimulated and rendered available; and it only could serve to check the expenditure of time, labor and money which wrong practice was so apt to incur upon the spirited beginner, who sought to improve.

The organization at present is only the beginning, and we cannot expect any great results for the present year. It will be seen that the officers have been chosen. It is expected that the Executive commit-

tee will meet at the office of the *Michigan Farmer* on the evenings of Tuesday and Wednesday of the week of the State Fair, to consult and advise as to the most efficient methods of promoting the objects of the society. Those who desire to become members of the State Horticultural Society, it will be seen by reference to the Constitution and By-laws, can become so by the payment of a dollar, in return for which they and their families will enjoy free entrance to all its exhibitions, the privilege of competing for its premiums, and they will come in for a share of the distribution of the seeds, cuttings, and plants of new varieties which from time to time will be at its disposal, and which may be purchased with its funds for trial or circulation. The members only will be privileged to have their fruits examined, and classified by the standing fruit committee. This is a matter of much importance to every fruit grower, and is a privilege which all ought to appreciate. How often may we hear the owner of a fine orchard exclaim as he points to the fruit on some favorite tree, that he would give five dollars to know what was its correct name.

The standing committee will meet at the office of the *Michigan Farmer* on the first day of the fair, and continue in session from time to time as they may deem necessary. The members of the Society or persons desirous of becoming members, and having fruit examined, may forward specimens, to the Secretary at Detroit, properly packed, either in jars or boxes, so as to exclude the air, and prevent them from being injured by bruises or otherwise. With the specimens should be sent also descriptions of the growth of the tree, whence it was procured, its habit of growth, and all such information as may be thought necessary to aid the committee in their examinations. Specimens of the foliage should also come with each fruit. It is expected that each person who is not a member, will become so when desirous of availing himself or herself of the advantages of the Society.

The committee is composed of the best fruit growers and judges of fruits in the state; and their judgment will undoubtedly be respected and esteemed.

It is not as yet decided that an exhibition will be held this fall, but it was suggested that at least one for fall fruits might be held at Kalamazoo, during the month of October or the early part of November. This will be decided upon at the meeting of the Executive committee to be held during the State Fair.

The present officers are chosen to hold their offices until the first of January and at the annual meeting to be held in December, a new election will be held, the constitution and by-laws amended, and a programme adopted for the ensuing year.

Taken altogether, we think we may congratulate the horticulturists of the state, on the initiation of a

society which promises to be a great and lasting benefit to Michigan.

Notes on Fruit.

(Continued from last Number.)

BY T. T. LYON, OF PLYMOUTH, MICH.

Peaches.

Aug. 26th.—Gathered the first peaches of the season. They were Serrate Early York, Early Tillotson, and Slocum's Early.

Serrate Early York is much the finest of the three fruits—a beautiful, medium sized fruit, with a rich vinous flavor: a good bearer, and a hardy tree. It is, as the name implies, of the cut-leaved, or serrate class; and is said to be liable to mildew at the east. With me, it mildews very slightly, if at all. It has ripened here as early as August 8th.

Early Tillotson was heralded, a few years ago, as the earliest good peach. The tree is quite similar to the above, but more liable to mildew, and is, withal, one of the poorest bearers we have. It has always ripened with the preceding, and the fruit is very similar in size, appearance, and quality—certainly no earlier or better.

Slocum's Early is a variety received, some years since, from Western New York, where it is supposed to have originated. Until this season, it has been later than the above, poorer and milder in flavor. This season's crop is earlier and better. The variety has, however, some redeeming qualities which will always recommend it, especially as a market fruit. The tree is a good grower, with reniform glands, entirely exempt from mildew, and is an enormous bearer; while its brilliant color is exceedingly attractive. It is a pale fleshed fruit, with an unusually bright red cheek. It appears to be somewhat disseminated about Jackson. Elliott, in his Western Fruitgrower's Guide, classes it among the rejected varieties; but he is evidently mistaken in the fruit, as he describes it as having globose glands, and yellow skin and flesh, neither of which is true of this peach.

Sept. 5th.—*Coolidge's Favorite* ripe—an old New England variety, healthy and hardy—large, beautiful, and of the finest flavor. It is one of the best bearers we have, and every way desirable.

Sept. 10th.—*Sweetwater* is beginning to ripen. It is an unusually mild, sweet, and juicy variety, of good size, and a fine bearer. This is the Sweetwater of Downing.

The *Sweetwater of Thomas*, is a serrate variety; very subject to mildew, and unproductive. Trees eight years planted, although hardy enough to withstand the past two winters, have never produced a fruit.

Emperor of Russia, a very unique variety, with leaves unusually narrow and deeply notched, is cultivated chiefly as a curiosity. The fruit, when produced, is said to be excellent. Liable to mildew, and a poor bearer.

12th.—*Honest John of Western New York*, is a medium sized, and very good fruit. The earliest yellow peach. The *Honest John* of New Jersey, is said to be the same as *Large Early York*.

Large Early York is now ripening. It has globose glands, and small flowers—is a hardy vigorous tree, and bears well. Fruit large, beautiful and rich.

Haine's Early is very similar in tree and fruit, and, by some, considered identical. There appears to be a slight difference in flavor.

Cole's Early is another very similar variety, but with a darker red cheek, and sometimes a little earlier than the above. It appears to be a superior bearer. Sometimes lacks juice.

Sept. 14th.—*Vanzandt's Superb* is a large and beautiful pale fleshed peach, now just ripening. The tree is a good grower; leaves with globose glands; flowers small; flavor excellent; bearing qualities yet doubtful.

Bellegarde is another variety, very similar in tree and fruit, and ripening at the same time.

Early Red Rareripe is an old variety, with serrate leaves, slightly inclined to mildew, but not enough so to affect its growth; fruit large, beautiful and excellent. It appears to be a rather uncertain bearer.

Late Red Rareripe is a few days later than the above, under ordinary circumstances, but the peculiarities of the season, or, perhaps, the severity of the past winter, has had the effect to bring them along together; although a portion of the crop of this variety is but partially colored. The tree is a good grower and bearer, and the fruit, large and beautiful. In flavor it has no equal in its season. No amateur should be without it.

White Imperial is beginning to ripen. It is a beautiful pale yellowish white peach, with its cheek delicately tinged and marbled with purplish red. The flesh is nearly white, and very slightly tinged with red at the stone. Very juicy and delicious. Desirable for preserving, on account of its color. Tree, very hardy, a fine grower, and a superior bearer. Profitable.

Yellow Rareripe is now in season. There is so much confusion among growers with respect to this fruit, that it is difficult to assure one's self of its correctness. The fruit, as grown by the writer, is of medium size. Skin, very downy, of a rich deep yellow, with a very dark red cheek. Flesh, deep yellow, very much reddened at the stone, juicy, rich, and sweet in flavor. Tree, vigorous, and a good bearer.

Early Newington Tree, is a variety the writer has in vain endeavored to get true. The variety usually grown in its stead is, however, a very fine fruit, and eminently desirable, at least to the amateur; it being a large, and unusually beautiful fruit, of excellent quality, and very juicy. The tree, also, is a fine grower, but a rather thin bearer.

Glands, globose; those of the true variety being reniform.

Sept. 15th.—*Crawford's Early* is scarcely yet in season; ripening an occasional specimen. It is too well known to need description. The fine growth of the trees, with the size, beauty, and excellence of the fruit, have long since ranked it as number one, among market fruits.

Cooper's Mammoth, received from Western New York some years since, proves identical with the above.

Alberge, or *Barnard's Seedling of Western New York*, is a good grower, and a great bearer of fine looking fruit; but, with me, most deplorably lacking in flavor. Its fine appearance would, probably, render it profitable as a market fruit.

Noblesse is a large, light colored, beautiful, and excellent fruit. It is desirable only to the amateur; as, although the fruit is of the highest quality the tree is of the serrate class, somewhat liable to mildew, a poor grower, and unproductive.

Gathering and Preserving fruit.

BY ROXBURY RUSSETT.

Whoever would derive large profits and prices from his orchard, must be prepared to take care of his fruits, as after they are grown they have to be gathered and preserved; and the better this part of the work is done, the more profits will be obtained. Besides it is the preservation which enables the fruit grower to put his valuable varieties in market when they are worth the most money.

The best mode of gathering as yet known is by hand, with the aid of self-supporting ladders, and small baskets, cushioned on the inside. There are various contrivances and some of them really meet all the requirements wanted, with the exceptions that they use up too much time. These contrivances answer for amateurs, but not for farmers. Every fruit taken from the tree should have its stalk unbroken, it should be gathered by hand, and placed in the basket, carefully and lightly, not allowing it to drop, or to knock against other fruit or against any substance that would bruise it in the slightest degree. The same care should be taken in removing the fruit when gathered to the fruit room, or place where they are to be kept. They should not be removed in a wagon or a wheel barrow. They should be carried in large baskets on a hand barrow, for that is the only method by which they can escape a certain amount of jolting.

The sooner winter fruits are removed to where they are to be kept, after being gathered, the better. The usual place of storing them is in cellars, where there are no special fruit rooms provided for them. If they have to be kept in barrels, each barrel should be clean and dry before the fruit is put into them.

Then they should be laid in as carefully as if they were eggs, for good keeping winter apples are worth as much, and good winter pears are worth a great deal more. But though it is the practice to put fruit in barrels to keep, it is not one that can be recommended, unless the fruit is about to be sent to market within a short time. When in barrels also, fruit cannot be inspected and watched, the decayed or decaying ones removed, and good supervision maintained.

Shelves are much better, and these shelves might be so arranged and divided that each subdivision would hold the produce of a single tree. By thus keeping the fruit of each tree separate there would be less danger of spoiling. Trees of the same variety frequently grow fruit very different in quality, and while the produce of some will be scabby and wormy, the fruit of other trees will be free from these defects. A range of shelves, each one capable of holding from five to six bushels or two barrels, would accommodate an orchard very well. For a tree that produces two barrels of choice fruit worthy of being kept over, may be considered a first rate tree; and an orchard that contains fifty of these trees is a first rate paying investment. By keeping sorts separate, and even the growth of each tree from each other, much sorting, and picking will be avoided. No fruit should go upon these shelves that is not first rate in quality. The cullings, which may be used or sold, could be preserved either in barrels or on the floor, till got rid of by sale or otherwise.

The fruit room should be a cellar, capable of being well ventilated and made dry before the fruit is placed in it, but afterwards it should be kept close, dark, and the temperature should at all times range between 35° and 45° Fahrenheit. Light and heat both act on the fruit and cause it to mature; and maturity is always followed within a short period by decay. Hence all fruit should be gathered at a period before they become quite ripe. The low temperature and the exclusion of light delays the time of maturity, hence the keeping quality.

A French writer, in the *Revue Horticole*, also claims that all the carbonic acid evolved from the fruit, should, if possible, be retained in the room. Hence after the fruit is put in its place, the room ought not to be ventilated, as this would permit this gas to escape, and also change the temperature. The same writer also charges on good grounds that all moisture or humidity should be kept out of the fruit room, as it likewise promotes decomposition, but the air should not be too dry, as then the fruit would dry up and wither.

It is calculated that a room 15 feet long, 12 feet wide and 9 feet high would hold shelves enough for 8000 large sized winter apples or pears, allowing each one to occupy an area of four inches square, so that no fruit would touch each other. Allowing

150 apples to a bushel would make room for about 600 bushels of apples not one of which would touch the other, or at least 1200 bushels, where they were piled two in height. Those who have good cellars for fruit will now see the advantage of them; but we should prefer a room in the orchard built under the shade of the trees, in the manner of an ice-house, with double walls doors and windows.

Standards vs. Rootgrafts.

ED. FARMER: As the growing of fruit as a staple product of our State is becoming more and more prominent each succeeding year, it seems of the highest importance that those who contemplate planting orchards with a view to their permanent ultimate benefit should know, so far as it is possible to obtain such knowledge, the relative value of the various methods of propagation, as practiced by different nurserymen, as deducible from our present experience.

We are aware that the mooted of this question will create a buzzing in certain quarters, not without our peninsular boundaries, though haply beyond the range of any spite-envenomed sting.

It seems to be difficult for men identified with any system to lay aside prejudice,—collate facts bearing upon its merits, or demerits, and trace therefrom an argument to its legitimate sequence, if adverse to their pecuniary interest. But for this cause we might have much to hope from our State Horticultural Association—if such we are to have—yet there is fear that in this regard they may emulate the virtues of their “illustrious predecessors.”

Whoever may have been conversant with the doings, and discussions of the North-western Fruit-growers Association will call to mind some noble exceptions to traits of character indicated above, in men who frankly and above board repudiated and condemned a practice their experience had disclosed to be erroneous; although involving the loss of thousands of trees, or the time, and labor of reworking them.

The evil results of root-working trees being more striking in the more central Mississippi region, it has done much towards effecting its own cure; and it is doubtful, if west of Lake Michigan there can be found a nursery of ten years standing that still makes it a reliance.

We will venture the presumption that the money paid from this State alone, for root-grafted trees more particularly for those brought from eastern nurseries, that are now dead, together with the Heart and Bigarreau cherries, dwarf pears, and popular peaches, to be put in the same category, would pay the interest, for the time, on a sum of money sufficient to build a railroad across the state.

This subject can never be settled in any wise satisfactorily by the ratiocinations of those whose inter-

ests are too much involved by the issue; but whose has bought the trees, planted them, seen their promise fulfilled, or their hopes blighted both of tree and fruit; to them we must appeal, let them bring forward the *facts*.

We will put the most vital points at issue in the form of propositions that whoever shall have anything to adduce may speak to the question.

1st. Standard grafts or buds, as a rule, are more hardy than root-grafts.

2d. They are more prolific.

3d. Earlier in proliferation.

It may be assumed that our own judgment stands upon the same basis of self-interest of which we complain.

The most conclusive answer to this is to be found in the fact that ten years ago root-grafting was our most approved method. That our nursery still displays its proportion of trees grown in this manner, of some kinds that seem least objectionable, for such as prefer them. But a degree of culpability would be felt in selling very many varieties as root-grafts without disclosing to the uninitiated what years of experience would seem to indicate as their true value, and the effect of the last two winters upon orchards, as well as nursery trees has dissuaded me wholly from their cultivation.

The facts of our own experience that have brought us to adopt the affirmative we will leave for the basis of argument, should there be occasion for further discussion. I will only add that trees budded near the ground, within six or eight inches, without being open to the objection so insuperable in root-grafting as a general system, are not only more economical as to labor, but seem to meet all the requirements of a perfect tree in beauty and proliferation.

B. HATHAWAY.

Little Prairie Ronde, August, 1857.

Proceedings of the Horticultural Convention.

Pursuant to the call issued to convoke a convention, a meeting of a number of citizens from various parts of the state was held at Jackson to form a State Horticultural Society.

The meeting was called to order by W. K. Gibson, Esq., of Jackson, and on motion, T. T. Lyon of Plymouth was appointed chairman, V. V. B. Merwin of Moscow, Secretary.

On motion, it was resolved that the members present be organized as an association to be called the Michigan State Horticultural Society, and that a committee of five be appointed to draft a constitution and by-laws to be submitted to the association for its government.

The chair appointed as such committee, R. F. Johnstone, Detroit; S. O. Knapp, and D. Cook of Jackson; G. C. Willis, Moscow, and George Taylor, Kalamazoo.

This committee submitted the following Constitution and By-laws, which were adopted :

CONSTITUTION.

Preamble. The interests of Fruit-growers, Nursery-men, Orchardists, and all persons who desire an advance in the Horticulture of Michigan rendering necessary an organization, which shall protect them from imposition, and promote the elevation of the science, the following Constitution and By-laws have been adopted for the government of an association to be called the MICHIGAN STATE HORTICULTURAL SOCIETY.

ARTICLE 1. The name of this association shall be the MICHIGAN STATE HORTICULTURAL SOCIETY.

ART. 2. The object of this association shall be the advancement of the science of Horticulture, and Pomology, and their kindred arts.

ART. 3. The association shall be composed of such persons as shall become members in accordance with the terms of By-law number six.

ART. 4. The officers shall consist of a President, one vice-President from each local or county Society, a Secretary, a Treasurer, each of which shall be chosen annually, and also of six directors, two of which shall be chosen each year for a term of three years ; but at the first election on the 2d Thursday of December 1857, six directors shall be chosen, who shall decide by lot which two shall serve for one year, and which two shall serve for two years.

ART. 5. The above officers shall constitute an executive committee, upon which shall devolve the general management of the affairs of the Society during its vacation, and any five of the said officers, including the President or Secretary, and one of the directors, shall constitute a quorum.

ART. 6. The general meeting of the Society for the transaction of business, and choice of officers, shall be held on the second Thursday of December at such place as shall be designated by the executive committee, all other meetings shall be called by the executive committee.

ART. 7. This constitution may be altered or amended at any annual meeting by a vote of two thirds of all the members present.

ART. 8. The officers elected at the first meeting of the society, shall hold their offices until the first of January 1858; and the terms of officers chosen at the annual meeting shall commence with the first day of January of the year succeeding their election.

BY-LAWS.

1. The President shall have a general superintendence of the affairs of the society while the executive committee is not in session. He shall preside at its deliberations, and appoint committees unless otherwise directed. In case of his sickness, death, or inability, his duties shall devolve on such one of the Vice-Presidents as shall be designated by the executive committee.

2. The Secretary shall call all meetings of the society and of the executive committee, shall be "ex-officio" Secretary of the executive committee and shall keep a record of all their doings, reporting the same at the annual meeting. He shall also in conjunction with the president and at the expense of the society provide places and conveniences for all meetings, fairs, &c.

3. The Treasurer shall receive all moneys belonging to the society, and pay over the same on the written order of the Secretary countersigned by the President.

4. A standing committee on fruits consisting of seven members shall be appointed by the President immediately after his election, whose duty it shall be to prepare a classified list of the fruits cultivated in the state, indicating their relative value and whether for orchard or amateur purpose, revising or amending said list from time to time as they may judge necessary, and reporting annually or when called upon by the society. It shall also be their duty to examine and report upon all new seedling varieties exhibited at the meetings of the society, and on such other seedlings as may be submitted to their inspection during the vacation of the society by any of its members.

5. Vacancies occurring in the committee shall be filled by the chairman of each, and in case of his death or inability his place shall be supplied by the President.

6. The members of this society shall pay into the treasury the sum of one dollar annually, and ten dollars paid at one time shall constitute a life-membership.

7. Order of business at the annual meeting:

1st Credentials of delegates present.

2nd Address of the President, with reports of officers.

3rd Reports of committees.

4th Election of Officers.

5th New business.

8. These By-laws may be altered or amended at any regular annual meeting by a vote of the majority of the members present.

On motion it was resolved that a committee of five be appointed to nominate officers for the consideration of the convention. Meeting appointed as such committee, T. T. Lyon, D. Cook, W. Choate, J. T. Blois and R. F. Johnstone, when it adjourned to half past six in the evening.

At half past six the convention met,

The committee to nominate officers made the following report which was unanimously adopted:

For President—H. G. Wells, of Kalamazoo.

For Secretary—R. F. Johnstone of Detroit.

For Treasurer—P. B. Loomis of Jackson.

For Directors—Hiram Walker, Detroit, D. K. Underwood, Adrian, John T. Blois, Jonesville, Linus Cone of Troy, G. W. Nelson, Grand Rapids, Wm. Bort of Niles.

On motion it was resolved that a standing committee on fruits be appointed, to consist of seven members, of which the Secretary shall be one ex-officio.

Messrs. H. G. Wells, Kalamazoo; T. T. Lyon, Plymouth; Daniel Cook of Jackson; W. Davis of Detroit; Prince Bennett of Ypsilanti; Wm. Adair of Detroit, and R. F. Johnstone, were chosen as such committee.

Mr. C. V. Deland of the Jackson Citizen read a letter received from J. C. Holmes of the Agricultural College, in which he regretted that peremptory duties would not permit him to be present, and strongly advocated the necessity of the organization of a State Horticultural Society.

Resolved, That all newspapers throughout the State be requested to publish the above proceedings. The convention then adjourned.

T. T. LYON, *Chairman*.

V. V. B. MERWIN, *Secretary*.

The Apiary.

In a late number, a writer asks Uncle John, why his bees do not swarm, and also why large numbers came out, and hung on the outside of the hive, without showing any disposition to work. To this, the reply is that some hives do not swarm, but the reasons are not well known, but seemingly the state of the weather has an influence upon them. There are large numbers of hives, the present season, which have not swarmed, owing it would seem to the cold and wet state of the weather during the time when they would have swarmed. When at Mr. Wines' place at Ann Arbor in July last, who keeps a large number of bees in a Gilmore House, we found he had several hives which would come out every day as though they were ready to swarm; but never did. He gave them more room, by putting on an extra

box for them to make honey in, when it seemed to have the effect of setting many of them at work, and the clusters of bees on the outside of the hive were much reduced, though they did not entirely disappear. Uncle John says he does not reckon it a great loss when bees do not swarm, as he calculates they make up the value of the swarm by the extra honey which they make.

AN EXPERIENCE WITH DRONES.

The same experienced bee man writes, "I saw in the July number of the *Farmer*, that it was estimated that a good strong swarm when leaving the parent hive, will carry away about five pounds of honey (now I wonder who the devil estimated that?) Now the largest swarm I weighed this year was but seven pounds and a quarter, and it was a very heavy one, and it could not have carried out more than from eight to sixteen ounces of honey. Experimenters with bees should be careful what they indite, for they are apt to mislead.

"Now I will tell you a story about my bees. Last fall, I was weighing my bees to find out what state they were in with regard to honey, to enable me to judge whether they could stand the winter, and one of my neighbors was helping me. We at last came to one that was extraordinarily heavy; says he "that's a snapper; what will you take for it?" Before I answered him I lifted up the hive, and looked into it, and perceived at once that there were drones in it. So I told him that excepting the value of the honey, the swarm was worthless, for it had no queen. I knew at once that when drones were present so late in the season, there could be no queen in the hive. I went immediately to a neighbor, who was killing off some swarms to save his honey, and procured a young queen, and put it in my hive, and in less than two hours afterwards, the workers were giving the drones their *coup de grace* by stinging them to death, as fast as they could, when the hive weighed no heavier than others."

A QUERY.

Miss Mary M. Wilson of Noble Centre writes:—"Dear Sir:—My father has a hive of bees that gives us great anxiety. During this excessively warm season, large quantities of the honey comb falls from its place to the floor of the hive, crushing some bees, and giving others of the workers evident trouble in recollecting it. Can you or any of your numerous readers give us any information as to the cause of it, and what is to be done. The hive is well shaded so that the sun's heat does not appear to be the cause."

The comb does not appear to have sufficient support, the wood of the box being possibly very smooth. In cases like this, it would be well to have a couple of cross bars run through the hive from side to side.

Foreign Horticultural Notes.

THE CACTUS FOR FODDER.—An Algerian colonist has found that the thornless cactus is a valuable plant for fodder for cattle in very dry and sandy barrens, where the hot sun burns up all other vegetation.

THE MILDEW ON GRAPES.—The flour of sulphur, mixed with water, and sprinkled upon the foliage and fruit of the vines, seems to have the most beneficial effect, to prevent the mildew, as well as to cure the disease which has been devastating the vineyards of France, Spain and Portugal. It might be that plaster would prove a good special manure for vines affected with this disease.

Hydrangeas may be made to flower blue, by being watered with water which iron has impregnated. Iron filings mingled with the mould in the pots where they are set, have been employed for the same purpose.

A Wistaria Sinensis has been grown in England in the open air, so that it covered a pear tree with its most beautiful racemes. As a fine greenhouse plant, worthy on account of the ease with which it may be grown and of its extreme beauty, it has few superiors. It may also be set out in summer, and forms one of the most beautiful ornament for suburban grounds. It is possible that varieties may be raised from seedlings which will withstand our winters.

The Flore des Serres, mentions that a double purple Scabius, grown like a Geranium, has been cultivated in Belgium. The plant requires to be cut "hard in," when it blooms profusely at the end of the year when good flowers are scarce and much wanted.

A new and handsome double yellow Rose has been grown, called Isabella Grey. The Gardener's Chronicle considers it as tender as the Tea Roses.

RIBBON BORDERS.—At Ripley Castle, in Yorkshire, England, the system of "bedding out" is carried on to a great extent, 15,000 plants being set out annually. A very effective ribbon is formed by four rows of plants, namely first row the Day Geranium; second, Tom Thumb Scarlet Geranium; third, *Calceolaria amplexicaulis*; fourth *Salvia patens*. It will be understood that ribbon borders are formed by planting rows of flowers in long, winding borders, so that at a distance it seems as though the deep green lawns or clumps of evergreens were wound around with a brilliant hued and many colored ribbon.

GOVERNMENT ENCOURAGEMENT.—The French Society for the Encouragement of National Industry, has reported that \$2000 (10,000 francs) offered by the French Government in conjunction with the Society, for the discovery of a cure for the vine disease which has so long desolated the vineyards of France and Spain, is jointly due, 1st, to Mr. Kyle, an English horticulturist, who applied sulphur to his vines in 1848; 2nd., to M. Duchartres, who first introduced it into France; 3d., to M. Goutier, a horticulturist near Paris, who first applied it on a large scale; and 4th, to Mr. Henry Mares, Secretary to the Agricultural Society of the Department of Herault, who proved by experiments that sulphur was superior to all other agents previously tried, and also pointed out the most economical method of applying it.

GROWTH OF EVERGREENS.—An *Abies Pinsapo* at Acton Green, near London, set out eight years ago, now measures thirteen feet and a half in height, and averages nine feet and eight inches in diameter of foliage.

A Cupressus Macrocarpa, or Large-leaved Cypress, set out nine years, measures twenty-four feet high and nine feet and a half in diameter. A *Cupressus Goveniana*, nine years planted, measured thirteen feet, by nine feet diameter of foliage.

The Household.

"She looketh well to the ways of her household, and eateth not the bread of idleness."—Proverbs.

EDITED BY MRS. L. B. ADAMS.

King and Queen.

BY L. B. ADAMS.

I am a king in my own domain,
And my little wife is queen,
And jointly over our realm we reign,
A royal couple I ween.

Beauty and grace are the robes that flow
From her lily shoulders down,
The gems of truth on her bosom glow,
And love is her golden crown.

But her dainty hands are brown with toil—
Her cheeks with the breezes kiss,
And she works for a tiller of the soil
As if work for him were bliss.

I am the king and the t'ler too,
My farm is my proud domain
And the will to dare and the strength to do
Are the scepters of my reign.

At my touch the teeming earth yields up
Her wealth for my feast and store,
The nectar of health brims high my cup,
My measure of bliss runs o'er.

O, ne'er was a happier realm I ween,
Than ours, 'neath the arching sky,
And never a happier king and queen
Than my little wife and I.

Marrying a Farmer.

"Elsie Brand has really married a farmer—literally thrown herself away for life, when with her education and accomplishments she might have had her choice from any profession. What a shame it is!"

This was the exclamation of my friend Mary, whom I met after an absence of some time from the village near which she lived.

Mary was a farmer's daughter, as well educated as farmers' daughters usually are, a very good looking, good hearted, sensible, thinking girl, and the last one from whose lips I should have expected to hear such a sentiment as that above quoted. I asked her why she called it throwing one's self away to be a farmer's wife; for she acknowledged that in point of intellect, education, property, good looks, good character, and indeed in all that could be desired, Elsie's husband was unexceptionable, with only this one fault, that he was a farmer.

"My words may seem like those of a giddy, frivolous girl," said she, "but they are not without truth and reason. I have had too many examples before me not to have learned something of the destiny of a farmer's wife. I might relate some pretty serious experiences in the histories of not a few of our neighbors, but just to set the matter before you as I look upon it, I will give you the example of my own sister. You saw her to-day, a frail, faded wreck of a

woman, without health or the power to enjoy the comforts of life her wealth might purchase. She is but five years older than I, and she looks twenty. Eighteen years ago she was married. There was not a more rosy, blooming girl in the neighborhood, and not in the county a more vigorous intellect, a better mathematician, a more accomplished reader, or one better versed in the current literature of the day than she. She married well, so we all thought. Her husband was an ambitious young farmer, with a comfortable beginning in the world, and seemed very proud to have taken such a prize as our Helen.

About a year after their marriage, the western fever ran high, her husband caught it, sold his farm here for a good price and speculated largely in western claims. They moved away, hundreds of miles from home, near the Mississippi. It was before the time of railroads, and we did not see them again for three years. They came home on a visit; Helen with a baby in her arms, but so changed that we could scarcely recognise her. She said she had not been sick, lived very happy &c., but she had grown thin, she was meanly clad in cheap, old-fashioned garments, she seemed neither to know nor care what was going on in the literary world, or indeed in any world except that bounded by the four walls of her own home: for she was very anxious to return, and did so in a few days, leaving us all sad and wondering at the change that had come over her.

In five years more, mother and I went to visit her. My dear friend, such a sight would have made your heart ache. There was her husband, a fine, robust, healthy man, and there was his splendid farm, field after field waving with ripening grain, and hired men and teams of horses, and reaping and mowing machines were preparing for the harvest which three great barns stood ready to receive; flocks of sheep and herds of cattle filled the pastures and reposed under the trees left for their protection, while the great white house, my sister's home, stood stark and isolated in a treeless field, without a shrub, a clambering vine, or even a green shutter to relieve the blank and glaring walls; and she, the mistress of the house, the wife of the owner of all this wealth, was sitting on a broken stool on the earth floor of an out door cellar, working over butter with a piece of whittled shingle, on a board which she held slanting in her lap to drip into a bucket at her side! The pale, thin phantom in that damp vault, with her slipshod feet, her blue cotton dress, scant and faded, the wan smile on her wretched looking face, and her little, skinny hand stretched out for welcome, was Helen! She led us down into her living tomb, and showed us long rows of pans brimming with milk, and firkin after firkin of golden butter which she had been all the spring and summer laying down for the autumn and winter market; and then we went out and saw her sixteen dairy cows, and her poultry

yard with its uncounted inmates, to whose wants and products she attended personally each day. In a cool chamber in the great white house, were barrels of eggs ready for the last boats to float down the Mississippi, to make winter feasts in southern cities. Four sturdy boys tumbled about among the weeds in the yard, chased the pigs, tore their clothes, rioted through the uncarpeted rooms, and disturbed people and things generally. Helen was on the go from daylight till late bed time, hurrying about in her eager, breathless way, attending to every part of her household, doing all the work with her own hands, sacrificing ease, health, intellect, life itself, to gratify her husband's grasping ambition for wealth. It was a painful thing to see, and we made our visit short.

A year ago her husband was caught and instantly crushed to death by some of the machinery on his farm. She, poor thing, lives on, though I verily believe it is because there is nothing left of her to die! Her oldest son has run away, the three others are as untamable as the young buffaloes of their native prairies, and her youngest child, her only daughter is a hopeless idiot. She is rich, she has lands and money, but what are they to her? What is life to her? or what has it ever been but a living death since she left her father's roof? A farmer's wife! No; rather let me dig my own grave and bury myself at once than be consigned to such a doom."

But, Mary, this is an extreme case, I said. All farmers' wives are not treated like your sister.

"No; thank Heaven, *all* are not; and yet I can point you to a dozen within the circle of our own neighborhood, whose lives differ from hers only in degree. Their whole existence is one ceaseless round of drudgeries all centering in the steaming kettle on the kitchen fire. Look at the hired men and machinery in the fields to lighten the farmer's labors, and then look at the wife, denied the aid of even one assistant in the labor which provides for the comfort of all. They cannot *afford* help for *her*. But they can afford to crush her intellect and wear out the delicate machinery of her frame in the most menial toil, and they do it without a particle of hesitation or remorse."

You will find such things in all classes of life, and if you were to know both sides of these histories you would as often find the wife to blame as the husband, I said.

"Instances there may be among other classes, but they are rare exceptions. Merchants, professional men, and even mechanics, are proud to have their wives live at ease, dress well, appear well in society, and, as the saying is, 'be somebody in the world.' But who ever heard of a farmer encouraging his wife to indulge in any such ambition? Be somebody, indeed! Isn't it her business to wash the potatoes, scrub, bake, mend her husband's shirts, make butter and cheese for him to sell, forget her former self, put

out the light of her own intellect, and live only by the glare of his kitchen fire? Of course it is; and you will see that Elsie, with all her education, beauty and intelligence, will come down to that level before ten years are past."

I hope not, Mary. You are sadly prejudiced against farmers, but there is too much truth in the pictures you have drawn; and it will always be so while women can be so easily led to undervalue their own worth. If they rate themselves of less account than the pecuniary interests of their husbands, who will prevent them from making the sacrifice? In the first place, women want more practical knowledge of housekeeping than they generally have, to enable them to manage a household properly, and take advantage of the work that must necessarily fall to them to do. And, in the second place, there should always be a mutual understanding between husband and wife, that she has just as good a right to "life, liberty, and the pursuit of happiness" as he. A little independence on the part of the wife as well as the husband, and the exercise of a moderate share of good sense on both sides, will generally secure these blessings to the whole family. Farmers' wives should not be drudges more than other men's wives; but too many of them are, in a degree, the counterparts of Mary's sister Helen.

Some bright and noble exceptions we could name, which give conclusive proof that intellect, and even high literary honors, may grow and flourish among the productions of the farm, and that when woman has it in her to "be somebody," she can, if she will, make it evident, in whatever situation she may be.

Miscellaneous Enigma.

I am composed of 17 letters. My 3, 2, 5, is a fowl. My 8, 6, 5, is a number. My 1, 6, 2, is an insect. My 8, 13, 17, is what we all should do. My 4, 10, 2, is a number. My 8, 4, 13, 7, 2, is a very useful animal. My 12, 13, 4, 16, is a natural pace of a horse. My 8, 4, 9, 11, lives near ponds. My 13, 14, 5, is what boys do sometimes. My whole must be practiced by all who wish to be loved and respected.

Vergennes.

GEORGE W. KRUM.

Geographical Enigma.

I am composed of 18 letters. My 9, 2, 5, 7, 14, 13, 12, is a city in Michigan. My 12, 16, 7, is a river in the United States. My 9, 14, 15, is a river in Russia. My 16, 7, 12, 13, 11, is a Northern circle. My 14, 9, 2, 7, is a river in Europe. My 17, 2, 9, is a river in the southern part of the United States. My 10, 11, 1, 16, is a state in the United States. My 3, 16, 7, 17, 11, 1, is a point on the northern part of North America. My 11, 16, 15, 16, 7, 18, is a group of islands on the coast of Africa. My whole is a useful book.

E. F. BROWN.

SEWING MACHINES.—We call attention to the advertisement of sewing machines manufactured by Grover & Baker of New York. These articles are getting to be as indispensable as the spinning wheels used to be, and it will not be long before a sitting room will be considered only half furnished with out one.

We have to acknowledge the receipt of a copy of the Report of the Smithsonian Institute for 1856 from Joseph Henry Esq., the Secretary.

MICHIGAN FARMER.

ROBERT F. JOHNSTONE, EDITOR.

DETROIT, OCT., 1857.

State Fairs for 1857.

Connecticut, at Bridgeport, October 13, 14, 15, 16.
 Indiana, at Indianapolis, October 4, 5, 6, 7, 8, 9, 10.
 Iowa, at Muscatine, October 6, 7, 8, 9.
 Kentucky, at Henderson, October 12, 13, 14, 15, 16.
 Massachusetts, at Boston, October 21, 22, 23, 24.
 Michigan, at Detroit, September 29, 30, October 1, 2, 3.
 New York, at Buffalo, October 6, 7, 8, 9.
 Pennsylvania, September 29, 30, Oct. 1, 2.
 Wisconsin, at Janesville, September 27, 30, & Oct. 1, 2.

County Fairs.

Allegan, Allegan, Oct., 8, 9.
 Clinton, St. Johns, October 8, 9.
 Eaton County, Charlotte September 30 and October 1.
 Genesee, Flint, October 7th and 8th.
 Hillsdale, Hillsdale, October 13, 14.
 Jackson, Jackson, October 7, 8, 9.
 Lenawee, Adrian, October 7th and 8th.
 Livingston, Howell, October 9, 10, 11.
 Macomb, Romeo, October 7, 8, 9.
 Oakland, Pontiac, October 14, 15, 16.
 Shiawassee, Corunna, October 7, and 8.
 St. Joseph, Centreville Oct. 14, 15.
 St. Clair, Port Huron Oct. 7, 8, 9.
 Washtenaw, Ann Arbor, October 7, 8, 9.
 Washtenaw and Wayne Union Society, Ypsilanti, Oct. 6, 7, 8.

The State Fair.

The executive committee of the State Agricultural Society are perfecting their arrangements rapidly for the accommodation of visitors. The docks at the landing have been enlarged so that persons going on the boats will not interfere with those going off. The fare is *five cents* each way, and as the boats will run every twenty minutes, there will be no need to suffer from the impositions of hackmen or omnibus drivers. It will be seen by our advertising pages what are the rates of the M. C. R. R. both for freight and passengers.

Our next number will contain a correct list of the premiums awarded, with notices of the stock and articles exhibited.

The Crops and their Prices.

During the month we have been as far south as Kentucky, as will be inferred from our report of a visit to the Fair of the United States Agricultural Society; and we have also paid a visit to a portion of Hillsdale and Jackson counties. The warm dry weather of the past month has ripened the corn and buckwheat crops, and both are coming in well. Many fields of buckwheat were harvested by the 20th, and much corn was ready to be cut up at the same date. The farming community feel relieved from much anxiety as to the crop of corn. At present the feeling is anything but satisfactory as to the value of wheat. The panic in the money market, together with the reports that the crops are so

abundant, has had the effect of depreciating prices, so that it is at present unadvisable for farmers to put their wheat in market. We incline to think that the decline has been too rapid, and that there will be nothing lost by farmers holding on to their stock of wheat. We are well aware that there is a large crop to go forward to the Atlantic markets, but we incline to doubt that it is as large as some of the grain buyers would have us believe.

We know that the wheat crops of 1855 and 1856 were severally estimated, in the Patent Office reports at 165 million of bushels and 180 million of bushels, yet the report of the Treasury for 1856, puts the wheat crop of 1855 at only 109 millions of bushels, and thus leaving a deficiency of 56 millions between the actual produce and the estimate for that year. Taking the same ratio of estimate, and we have about 118 millions of bushels as the actual produce of last year.

It is true that the yield of wheat is better in the whole of the States than it was last year; but it is far from safe to estimate it at more than 160 millions of bushels. In the states where there has been an increased production, we think it is balanced by those which have failed to produce a full crop. For instance New York, which has not a full crop, will balance the increase in such States as Tennessee, Kentucky and Missouri, while in Missouri, Illinois, Iowa Wisconsin and other western states, the increased production is met by an increase of consumption caused by a larger population, and a greater proportion of consumers.

In 1850, the population was 23,191,876, and the production of wheat was 100,485,844. In that year there was exported about seven millions of bushels, leaving about four bushels per head for home consumption. Since then in years of scarcity our exports have gone as high as 29 millions of bushels for a single year. This year we doubt if they exceed ten millions, and taking that from the whole amount estimated as the actual produce, it leaves but 150 millions of bushels. Our population at the present date, is supposed to reach close up to thirty millions, and thus it will be noted that we have five bushels of wheat per head for home consumption, instead of four bushels which was the ratio in 1850.

With these data before us, we are not inclined to believe that wheat should be worth less than a dollar a bushel, while they incline to us to hope that it will be worth more before the crops of 1858 are harvested.

It is true that the accounts of the crops in Europe are very promising. The French journals received at this office, state that the cereals had surpassed the expectations of all in abundant produce, and that the fine weather during harvest had permitted the crops to be secured in the best conditions. The effect on the prices was to lower the rates on average

over the whole of France about one franc and 60 centimes per hectolitre, or about ten cents per bushel.

Out of nearly 200 answers to letters sent to all parts of the kingdom, making inquiries about the crops, two thirds at least report the wheat crop over an average and the remainder call it, a full average. The Agricultural Gazette in summing up the table of reports says, "The wheat crop may be pronounced unusually productive. The barley crop is of unusual extent, but will probably yield barely an average per acre. The oat crop is decidedly below its average productiveness. Pulse crops are for most part inferior. Potatoes have promised better but are more diseased than they have been for several years. The hay crop is good and unusually well got in. Turnips are inferior, and mangel wurzels generally good."

From this we should conclude, that the demand for wheat will be light, but for corn it will be heavy! and this crop will probably be held well at fair rates. We consider it doing well when it does not fall below 50 cents per bushel.

In our opinion farmers should hold on to their wheat for the present, as it cannot be much lower than it now is, whilst the chances are in favor of a slight advance as soon as the necessities of the home demand are properly understood.

Book Notices.

MRS. HALE'S RECEIPT BOOK FOR THE MILLION.—T. B. Peterson, of Philadelphia, has now in press the above work which will be published and ready for sale on Saturday October 2nd. From the table of contents which accompanies the circular announcing its publication, we should judge that this will be one of the most popular and useful books of its kind ever offered to the public. It is to be a volume of nearly eight hundred pages, containing over four thousand five hundred receipts, facts, directions, etc., in the useful, ornamental, and domestic arts, and in the conduct of life. The whole is arranged with an alphabetical index to every receipt in the book, whereby anything wanted can be found in a moment.

Copies of the work will be sent to any part of the United States, free of postage, on remitting the price to the publisher in a letter. Price \$1.25 a copy.

Address T. B. Peterson, 306 Chestnut st., Philadelphia.

THE PHYSIOLOGY OF NEW YORK BOARDING HOUSES.—This is a burlesque on New York boarding houses, written by T. B. Gunn, and illustrated with numerous ludicrous caricatures representing the peculiarities of the people and places described. It is published by Mason Brothers, New York, and for sale by Raymond and Selleck, Detroit.

LECTURES ON TEMPERANCE, by Eliphalet Nott, D. D., LL. D. These celebrated lectures are published in a handsome volume by Sheldon, Blakeman & Co., New York, and for sale by Raymond and Selleck, Detroit.

It will be noted that Messrs. C. M. Saxton & Co. are about to publish a new book containing full directions for the culture of the Sorghum, and also for the manufacture of sugar from the same, as well as some other things, such as alcohol. This work is designed to contain all the most recent information, with some letters furnished by the American minister at Paris, which are said to be of interest.

Michigan Stock Register.

Horses.

YOUNG FOXHUNTER.—A dark chesnut sorrel horse, 16 hands high. Owned by James Trudeau of Niles, Berrien Co. Mich. Foaled in 1851 in Canada. Sire, Foxhunter, a thoroughbred horse brought into Canada in 1846, from England, by officers belonging to some of the regiments at that time quartered at Quebec. Foxhunter was sired by a son of Medley a horse of the best blood, and the highest reputation as a winner on the English Turf, being well known for his great endurance, and the excellence of his stock. Dam, Moscow, the celebrated trotting mare, got by Old Moscow. Grandam a mare sired by Duroc.

The following certificate accompanies the pedigree of Young Foxhunter, as showing the estimation in which he was held in the neighborhood where he was raised:

We, the undersigned, are well acquainted with Young Foxhunter, and consider him as good and well bred Foxhunter horse as now lives, and also that this stock of horses is not surpassed by any other. They are heavy boned, and of remarkable courage:

Peirre Roe, St. Marie.
Jacques Roe, do
F. Gravelle, Lapraire.
Col. S. Ives Longueuil.

Peirre Marcelle, Boucherville.
Julien Varbois, Montreal.
Col. L. Marten, Chambly.
Samuel Frecht, do

YOUNG MORGAN EMPEROR.—A dark bay; 15½ hands high foaled in 1854, bred by Noel Vasseau of Bourbonnois Grove, Illinois. Now owned by James Trudeau of Niles, Michigan.

Sired by Morgan Emperor 2d, grandsire Bulash Morgan. g. g. sire, Justin Morgan.

Dam was from a trotting mare named St. Lawrence, and she was sired by the celebrated trotting horse St. Lawrence.

Morgan Emperor was the sire of Chicago Jack and North Star both well known as trotting horses.

The dam of Young Morgan Emperor had a great deal of the appearance and gait of Old St. Lawrence, and Young Morgan Emperor seems to have inherited it, as his general appearance is much the same as that St. Lawrence.

Shorthorns.

53.—EMPIRE.—Bull, owned by James Lyon of Moscow, Hillsdale county. Calved in 1851.

Sire, Old Splendor, 767 A.

Dam, a cow sired by Echo, a bull not entered upon the Herdbooks.

When Mr. Lyon purchased the bull, he was furnished with a printed pedigree, which reads thus,

"The Bull Empire is five years old, was sired by Old Splendor, his dam was sired by Echo, his granddam was the imported cow Beauty imported by Thos. Weddle. For further information you are referred to the American and English Herdbooks."

Now such a pedigree is got up to deceive. By its reading we must suppose that the imported cow Beauty was the dam of the cow sired by Echo; this is not the case however, while it is perfectly true that Beauty is the grandam of Empire because she was the dam of Old Splendor. In fact the pedigree is defective, as it does not trace the descent on the side of the dam to any well known cow nor to an imported cow. On the side of the sire it is all right, for Old Splendor was a bull of well known reputation and estimable pedigree.

NO. 54.—LOAGN.—Bull, red and white; calved Dec. 9, 1855. Bred by G. F. Harington of Paw Paw, Van

Buren Co. Mich. Owned by P. M. Munger of Cheshire, Allegan County, Mich.

Dam, Rosette 8d, by Duke of Wellington 55 A, imp.

g. d. Rosette 2d, by Prince 841 A, a bull sired by Baronet, bred and owned by Sir Charles Knightly, the celebrated breeder.

g. g. d. Prudence, by Ajax.

g. g. g. d. Selina by imported Comet.

g. g. g. g. d. Cypress by Nelson of the Bullock importation, noticed in our account of the Sly stock in the September number of the Farmer.

Sire, Sir William 977 A. got by Wallace 179 out of Eunice 8d by Duke of Wellington 55 A.

g. d. Euuince, by Copson imported, 3482 E, a bull of the Coxe and Bullock stock of 1828.

g. g. d. Caroline by Comet, imported.

g. g. g. d. Punch, by Nelson imported by Coxe; and out of a thorough bred cow likewise imported by Coxe of Albany, N. Y., in 1828.

Notes and Queries.

The furniture warehouse of Stevens & Zug will be well worthy of a visit by those who are in Detroit during the State Fair. Their fine furniture has frequently borne off the first premiums.

We call the attention of those setting out orchards in the southern part of the state, to the advertisement of Messrs. Ilgenfritz and Bentley, of Monroe. At the State Fair last year, this firm not only exhibited a great variety of fruit, but were awarded the first premiums.

PROFITABLE SHEEP.—Mr. Reeves, of Milan, Monroe co. had twenty-nine head of sheep this spring, of which ten were yearlings. From them he sheared two hundred and five pounds of wool, which he sold at fifty-two cents per pound at Toledo. These sheep are a cross of French and Spanish Merinos, his buck being one purchased from Mr. John Brewer, of Superior. These sheep have run on the road since shearing time, and are now very fat. Can any of your readers beat this? A. R. B.

While at Michigan City, we visited the stables of Fisher Ames Esq., a gentleman who has a very fine and perfect Morgan horse, named Grey Morgan from his color which is a dappled grey. His pedigree is excellent, being only one remove from Sherman Morgan, and with a granddam sired by the Burbank or Barker horse. Mr. Ames would sell this horse, and those looking for a compact, well built, serviceable stallion of clear blood and quality, might look farther and fare worse.

J. A., of Woodland, asks which is the best work on the Kitchen Garden. We have no first rate work, but "Buist's Family Kitchen Gardener," published by Saxton & Co., at 75 cents, is a pretty good book. We can send it by mail on receipt of the order and money.

J. A. also asks, "Will any of your readers give, through the *Farmer*, their treatment of Poll Evil? This loathsome disease appears to be on the increase in this part of the country, and no perceptible reason can be assigned for it. The very best of horses are attacked by it."

Poll Evil is the effect of bad treatment, generally, and of low stables. The constant friction of the head stall, without the use of the brush or curry comb, and the consequent itching of the poll, and the efforts of the horse to rub it, bring on irritation, then inflammation, which is not often perceived till an abscess is formed, and the abscess is termed Poll Evil. A cure for it was published in the *Michigan Farmer* for August, 1856, of the efficacy of which

we have had one or two letters speaking very highly. The receipt is, wash the sore thoroughly clean with strong soap suds, and then drop eight or ten drops of muriatic acid in it twice a day, until it has the appearance of a fresh wound, after which it should be washed clean with suds made of castile soap and left to heal. The muriatic acid should be repeated until the whole of the diseased flesh is burned out. Dr. Dadd recommends poulticing with linseed until the swelling is brought to a complete suppuration, then washing out with a solution of iodine, and filling the wound with a preparation of salt and blood-root to promote a healing inflammation. Should this not answer, he uses a dressing of spirits of turpentine, pyroligneous acid or kreosote, and linseed oil, in equal parts. Whenever the part shows a disposition to heal, dress it with a tincture of aloes and myrrh; the bowels to be kept open all the time.

The machine for saving chopping by sawing down trees, costs about \$150, and is a circular saw operation worked by horse power. We do not recollect the names of the patentees, but can find out it necessary.

In accordance with the request of the very able editor of the *Veterinary Journal*, we call attention to the Boston Veterinary Institute, the only veterinary school in the United States. The members of the Faculty are Geo. H. Dadd, V. S., Professor of Anatomy and Physiology, C. M. Wood, V. S., Professor of Theory and Practice of Medicine and Surgery, Robert Wood, V. S., Professor of Theory and Practice of Medicine on neat stock, and Arthur S. Copeman, V. S. Professor of Chemistry and Pharmacy. Their facilities for instruction are superior, and their collections of specimens, diagrams and anatomical preparations, are large and costly, and enable them to illustrate their teaching in the most thorough manner. The fees are, for a sessional course of lectures \$100, matriculation \$5.00, graduation \$25.00.

We acknowledge the receipt of a ticket of membership from N. S. Hammond, Secretary of the Clinton county Agricultural Society, and should be most happy to avail ourselves of its privileges were it possible to do so.

BLOODY MURRAIN.—A. V. Cook Esq., of Erie, Monroe county, has had considerable experience and been very successful in treating that fatal disease of cattle, the bloody murrain; and he has furnished the following receipt for publication, it having been tested thoroughly, and found efficacious in numerous cases:—

Take one ann a half table spoonful of burnt alum pulverized, two spoonful of salt-petre pulverized; put them in one pint of yeast or one quart of sour buttermilk, put in a bottle, shake well, then turn it down the beast and and move them gently for fifteen or twenty minutes, and if the physic does not work in that time, repeat the dose.

For dry murrain, double the dose of yeast or buttermilk and of salt-petre, laying out the alum. Give as above, and repeat if necessary.—*Monroe Press.*

WHITE BULLS.—R. G. Corwin's bull' Crusader, which ranked next to Sirius, as the best bull shown at the United States fair, is white, yet of all the calves raised from him for three years only three have been white. He has generally given his stock a red roan color. We cite this to show that in a bull white may not be an objection.

MORE HORSES.—It will be noted that in our Stock Register, there are the pedigrees of two horses owned at Niles, in Berrien county. This is the first entry in our register from that section of the State. Both these horses will be shown at the State Fair. They are now in the stables of Mr. Henry Chappell at his race ground in Grosse Point.

Young Foxhunter, we consider a remarkably fine animal and most unquestionably a good stock horse. He

shows unmistakable evidences of good breeding in nearly every point. In color he is a dark chestnut sorrel, with a remarkably fine coat, in which every vein may be traced. His carriage is of the highest style. His neck is set well back on his shoulders, arched and strong rising from a broad well developed chest. His back is long, straight, with a full loin, and very round, compact body, in fine proportion to his height and limbs. His legs are clean, well made, joints full and muscular development very good. His gait is a square, clean trot, with feet well gathered, under him when at speed, and working over the ground easily and naturally, without any straining efforts.

He comes of an excellent strain of blood, and one that is celebrated for bottom and endurance. Medley, his great grandsire was celebrated for his game qualities as an unflinching racer, that never gave up while he had a leg to stand upon. He was sired by the equally celebrated Grimmer, who was got by Cripple, a son of the Godolphin Arabian. The Turf Register states that Grimmer "was one of the severest running and hardest bottomed horses that ever ran in England."

In temper and docility, Fox hunter is one of the most manageable of horses, and this is a point of great importance in a horse of general utility.

Young Morgan Emperor is a colt, not quite four years old. He promises well, though he is as yet untrained, he shows great speed. We are very much pleased to see such fine stock from the Western part of the State coming to the State Fair.

MR. KEENEY'S DEVON BULL.—In the "Jottings" of our agent, reference is made to the Devon bull now owned by Mr. A. J. Keeney of Erie, Monroe Co. This bull was purchased of Mr. J. R. Grosvenor of Monroe, and not of Mr. Bartlett, Lasalle, as stated. Mr. Keeney writes that potatoes showing signs of the rot during the early part of the season, have recovered, and are not now affected,

ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS FOR 1858.—The number just published, and which is for sale by Wm. B. Howe, of Detroit, is the fourth, and is equal to any which has preceded it. J. J. Thomas, the well known fruit culturist is the author, and the work bears evidence of his care and precision. The work is issued by Messrs. Luther Tucker & Son, of the Country Gentleman, Albany N. Y. and its execution reflects much credit upon them. The work will be found very useful, both for instruction and reference.

We have received from A. K. Waldron of Tecumseh a can containing some fine specimens of the *Honest John*, Sweetwater and Early Crawford peaches. They were in good order, and were good samples of the fruit in his orchard, as well as of the varieties named.

E. S. Homes, of Lockport, N. Y., has recently perfected a machine for husking corn, which may be operated by a crank, or by any convenient power. This machine takes off the husks, and cuts off the ear from the stalk.

The plant of which Mr. Rich, of Chester, sent us a small branch with the leaves and flowers, is the *Maryland* or wild Senna, and is only cultivated as a substitute for the Egyptian Senna sold by the druggists.

In reply to his inquiries about the Sugar Cane, we refer him to the May and August numbers of the *Farmer*, which contain the necessary information. To have the most and best saccharine juice, it should be cut just before the seed is fully ripe, or while it is in the milk. Scott and Hedges, of Cincinnati, have manufactured an excellent mill for pressing out the juice or sap, but its price is high.

County Fairs.

The Oakland County fair is to be held at Pontiac on, the 14th, 15th or 16th of October, instead of on the 7th, 8th and 9th, as published last month. This is a correction to which our attention has been called by the Secretary. The fair of Allegan county, is to be held at Allegan on the 8th and 9th of October. J. R. Williams, Esq., of Lansing will deliver the address.

Foreign Agricultural Notes.

ENGLISH AGRICULTURE.—We note that in reviewing the amount of work claimed to have been done by an outgoing tenant of an English farm, the editor of the *Agricultural Gazette* seems to think a better knowledge of improved implements desirable amongst a certain class of farmers. For want of them, in perfecting a 5-year's rotation, he enumerates twelve plowings, twenty-four harrowings, and sun, dry cultivatings, scarifyings and horse hoeings, together with a considerable number of rollings. It is estimated that in the cultivation of a single acre, a man and a pair of horses have each walked from fifty to sixty miles. This is considered useless.

THE GLASSNEVIN MODEL FARM.—This institution lies about three and a half miles north of the city of Dublin, Ireland, and is considered a most successful agricultural educational experiment. The farm is a part of the Albert National Training Institution, established to give instruction in the practice and science of agriculture. It is customary for a great many to quote as a general argument against attempts at agricultural education, that all schools have been unsuccessful. The only reason for want of success, has been, first, that the system of training required, involves the outlay of more capital than private means can furnish; and second, it was difficult to find the proper kind of instructors, men who combined a practical knowledge of how to adapt scientific instruction with the work of the farm. These deficits are being remedied from time to time, and it will be found that agricultural schools will be successful.

On this Glassnevin farm, the first cutting of a crop of Italian rye grass was taken off the ground on the 4th of May, and weighed fifteen tons per acre. Twelve cows fed on this rye grass, gave 145 quarts of milk per day; and the same cows fed on rations of mangel wurzels, steamed chaff, oil cake, bean meal and bran, gave but 116 quarts per day. The butter made from their milk when fed on rye grass, was equal to 3lbs. 5oz. from ten gallons; from the same quantity of milk when the cows were fed on the rations of mixed feed, the amount of butter was 3lbs 10oz. But the total milk of each day produced from the rye grass, gave 12lbs. 1oz of butter against 10lbs. 8oz. from mixed food. The second cutting of Italian rye grass was nearly ready on the 16th of June, and promised to be as heavy as the first.

The yearly average of rain in Ireland, as measured by Mr. Moore, Curator of the Dublin Society's Botanic Garden, is about twenty-six inches. The minimum is twenty inches, and the maximum twenty-eight inches.

The finest English cider is produced in the vale of Berkley in Gloucestershire. The apples are pressed in a mill by a large circular stone revolving in a stone trough and great care is taken to crush the seeds. These seeds contain an albuminous matter, which is considered very essential to the preparation of the best cider, and small apples, containing large quantities of seeds, are chosen as the best for making cider in this district.

The St. Clair county Society holds its annual fair this year at Port Huron, on the 7th, 8th, and 9th days of October. John E. Ketton, Esq., is President and Edgar White Secretary. Their premium list is liberal. We hope to be able to pay a brief visit to St. Clair after the fair, our engagements preclude us from being present, this year.

The Eaton county Agricultural Society held its third annual Fair at Charlotte on the 23d and 25th of September. The address was delivered by the President, H. E. Shaw, Esq. John Morris is Secretary.

The Monroe County Fair will be held at Monroe on the 7th, 8th, and 9th of October. The executive committee are notified to meet on the fair ground on the first day of the fair to complete all the arrangements. Monroe county should sustain a good Society and hold a fair that should draw out a general attendance.

The Ingham County Fair is to be held at Mason on the 15th and 16th of October. This will be the third annual fair of this society, and from the list of premiums offered we should judge it is growing in the popular favor. The President is Hiram Bristol. The Secretary is P. Lowe.

THOROUGHBREDS AT THE STATE FAIR.—At the Fair there will be shown the following thoroughbred horses, which are entered for the races to be held during the week at the course of Mr. Chappell, some two miles above the fair grounds.

Kennett, a three year old colt, out of imported Yorkshire, from a dam sired by Wagner. This colt is entered for the two mile and three mile heats, and possesses a most unflagging spirit, and great bottom.

Berry, a bay gelding, owned by J. Hendrickson, of Canada, sired by imported Sovereign out of a dam sired by Glencoe.

Kitty Hunt, a bay mare, owned by K. Allen, sired by Churchill, from a dam by Cherokee.

These three are entered for the two mile heats and also for the three mile heats, and it will be noted that they are from the best horses ever imported into the United States.

Captain Buford, a chesnut 4 years old, owned by H. R. Andrews, sired by imported Glencoe from a dam by Medoc. He is one of the fastest horses on the turf, and is entered for the two mile heats.

Kite and Mario, two colts from Grey Eagle, *New Castle Maid* by a dam sired by American Eclipse, an untried colt by Wayner, and a chesnut colt named *Friday*, by Colonel, all from Canada, are entered for the mile heats; and so are *Billy Boston*, and *Madelaine* both favorite and excellent specimens of thoroughbreds from the celebrated Boston, the latter being from Magnolia, a daughter of Glencoe.

The list is not easily surpassed, and outside of Kentucky or Virginia, it is seldom that so many of the Stock of celebrated and famous race horses are to be seen together at any State fair. Eclipse, Wagner, Sovereign, Boston, Glencoe, Medoc are names that will sound familiar to every one.

A Word to the Farmers.

Here in Detroit, hundreds of little children throng stores, offices, and dwellings, begging for a penny to buy bread, and, too often, the charity thus bestowed goes into the rum-sellers' coffers. To remedy this evil, the ladies of Detroit, of all religious denominations, have united and organized an Industrial School Association, and propose to open a school on the 5th of October, 1857, at No. 26 Monroe avenue, for the outcast children of the city.

Girls under fourteen, and boys under eight years of age admitted. The morning hours will be devoted to instruction, by voluntary teachers, in the rudiments of education, a good, substantial dinner provided, and the afternoon devoted to instruction in sewing. For punctual attendance and good conduct, each child will be entitled to reward tickets redeemable in clothing.

Is not the object a good one? Will not every farmer, when he brings his produce to market, call at No. 26 Monroe avenue, [just around the corner from J. L. Wright's,] and give us something to help feed this flock of outcast little ones? The good Giver has bestowed an abundant harvest, and surely you will gladly return Him a thank offering in this way. Who will bring us some meat, or potatoes, or beans, or apples or flour? Any kind of produce will be acceptable. Who will bring us a load of wood! or what farmer's wife will send as some flannel, and what good grandmother will knit a pair of stockings for little bare feet?

Our school will always be open for the reception of visitors, and the children ready to thank you with happy looks and gladsome songs. Please remember the Industrial School, No. 26, Monroe avenue, Detroit.

E. M. SHELDON, Com.

Programme of the State Fair.

The Annual Fair for 1857 will be held on the Detroit Course, on Tuesday, Wednesday, Thursday and Friday, Sept. 29th and 30th, and Oct. 1st and 2d.

Entries can be made at the OFFICE OF THE MICHIGAN FARMER, 130 Jefferson avenue, Detroit, until Monday evening, Sept. 28th. The Executive Committee will meet at the Office of the Michigan Farmer, on Monday evening, the 28th.

Tuesday, First Day—Entries will be made at the entry office, on the Fair Ground, during the day, and all animals should be entered and in readiness for exhibition by 6 p. m. of the 29th.

Wednesday, Second Day—At 9 o'clock, a. m. there will be a meeting of the Executive Committee, on the Fair Ground, for the purpose of filling vacancies that may occur in the viewing committees. At 10 o'clock a. m. grand cavalcade of all the Horses on exhibition, immediately after which, all the viewing committees, except the committees on horses and cattle, will proceed to their work.

Horses—At 11 o'clock, a. m., exhibition of horses of all work on the track. At 1 o'clock, p. m., exhibition of blood, horses on the track. At 3 o'clock, p. m., exhibition of trotting stallions, in trial of speed, to be tested singly and in harness.

Cattle—At 11 o'clock, a. m., examination of Class 1, Shorthorn Cattle in the Cattle Ring. At 2 o'clock, p. m., examination of class 2, Devon; class 3, Herefords; and class 4, Ayrshire, in the ring.

Thursday, Third Day—**Horses**—At 9 o'clock a. m. grand cavalcade of all the Horses on exhibition. At half past 9 a. m., exhibition of Matched and Single Horses on the course. At 11 a. m. exhibition of Draught Horses on the course. At 3 o'clock p. m., exhibition of Trotting, Matched and Single horses, other than stallions. At 4 p. m. exhibition of Foreign Horses. All horses in trials of speed, except matched horses, will be exhibited singly and timed.

Annual Address—At 2 o'clock p. m. the annual address will be delivered by SANFORD HOWARD, of Boston, Mass.

Cattle—At 9 o'clock a. m. exhibition of class 5, cross of blood cattle; class 6, cross of Blood and Native; class 7, Native Cattle in the cattle ring. At 11 a. m. class 8, Working Cattle; class 9, steers; class 10 and 11, Fat Cattle; and class 12, Milch Cows. At 1 o'clock p. m. exhibition of foreign cattle in the ring.

Friday, Fourth Day—At 9 o'clock a. m. the reports of the Viewing Committees will be read. At 9 a. m. grand cavalcade of all the prize horses and cattle on exhibition. Prize animals and articles will be designated as follows: 1st prize a blue card, with the words "First prize" printed upon it; 2d, a red card, with the words "Second Prize;" 3d, a white card with the words "Third Prize."

Annual Meeting—The annual meeting for the choice of officers, and for the transaction of such business as may come before the meeting, will be held immediately after the reading of the reports of the viewing committees.

The several Railroad companies have agreed to take freight and passengers on the same liberal terms as those of last year. And it has been decided that all articles for entry and exhibition arriving in the city previous to noon of Tuesday, Sept. 30, shall be conveyed to the fair ground free of expense. This of course does not include live stock. Arrangements have been made with the Detroit and Windsor Ferry Company to run their boats from the Ferry Wharf, at the foot of Woodward avenue, at intervals of 20 minutes, from 8 a. m. to 6 p. m. The boats are the *Windsor, Ottawa and Union Express*, and are capable of conveying a very large number of passengers with comfort and dispatch. Fare five cents either way, no half price. Tickets can be obtained at the Ferry office or on the Fair Ground. To obviate delay, passengers are requested to procure tickets beforehand, and have them ready for delivery in passing on the boats.

J. C. HOLMES, Sec'y.

The Markets.

The prices of breadstuffs having fallen very low, we have to note an improvement in them. Flour now ranges from \$5.00 to \$5.50, and as the close of navigation approaches it may still further improve. Prime white wheat brings from \$1.00 to 1.10. Much that comes to market is of second rate quality, and it is therefore quoted at from 80 to 90 cents. Corn is declining a little, and is now at 65 to 70 cents. Barley is steady at \$1.60 to 1.70 per 100 pounds. Oats are plenty at 33 cents. Potatoes have been below 25 cents, but a few well directed rumors about the prevalence of the rot sent them up to 40 or 50 cents; they now sell from 25 to 35 cents per bushel. Eggs have been very low for the season, being worth only 12 cents per doz. Fresh butter is maintained at 22 to 25 cents. Poultry plenty from 25 to 35 cents per pair.

Apples of good quality bring 62½ cents per bushel, but common ones sell from wagons at 35 to 50 cents. Peaches of good quality are worth from \$1.00 to 2.50 per bushel. Most of those in this market have come from Ohio and sell some days at 1.00 per basket, on others at \$2.00 according to the supply. Plums are not plenty, but sell from \$3.00 to \$5.00 per bushel.

Beef cattle of first rate quality are not in market. Good fair animals are worth three to three and a half cents per pound alive. Sheep bring from \$1.75 to \$2.50 per head. Prime heavy mutton sheep is worth more according to weight. Hogs sell readily at 7 to 8 cents per pound.

MONROE NURSERY.

ILGENFRITZ & BENTLEY

HAVE OVER

1,000,000 Choice Fruit and Ornamental Trees, Evergreens and Shrubbery, embracing all the choice varieties of

Apple, Pear, Cherry, Peach, Grape, &c., Which will be sold on moderate terms for ready pay.

Nurserymen and Wholesale Dealers

Are especially invited to call upon us, and examine our large stock of Apple, upon which we will make a liberal reduction by the thousand.

Small Nursery stock, Seedlings, Table Grafts, and one year old trees, etc. constantly on hand.

Orders solicited and promptly attended to.

Monroe, Mich. 1857. oc3t ILGENFRITZ & BENTLEY.

SELF ADJUSTING R. R. DOOR HANGERS.

For Depots, Burns and Outbuildings,

ON receipt of \$2.00 I will send the above article, with Iron rail for an eight foot door; and \$3 for a 12 foot door. Warranted to give full satisfaction. Full directions for putting up accompany each set.

sep2t

A. W. MORSE, Eaton,
Madison co., N. Y.

DEVONS FOR SALE.

A FEW thoroughbred bulls and heifers, bred from my own herd by my improved bull, Duke of Devon.

Also, Essex hogs.

Address,
Chas. A. Ely, Elyria, O.

WILEY & HALSTED

351 Broadway, New-York,

Have now ready

Downing's Fruits and Fruit Trees of America.

Thoroughly revised, with very large additions, especially in Apples and Pears, with many new cuts of new Fruits.

EDITED BY CHARLES DOWNING, Esq., brother of the late A. J. Downing.

1 volume, 12mo., containing over 750 pages. Cloth, \$1.50.

The reputation of Mr. Charles Downing as a Horticulturist, together with the general popularity of the work, leads us to anticipate a large and immediate sale of this new Edition.

Orders from the Trade, and dealers in Agricultural works are solicited, and will be attended to with promptitude. No copies will be forwarded without orders.

Notices of former editions.

"Nothing compared with it on the subject of Pomology has yet been published in the United States. Unquestionably the standard pomological work of this country." *Amer. Agriculturist.*

"A deliberate examination of the work enables us to say that it is by far the greatest acquisition placed within the reach of American cultivators of fruit." *Cultivator.*

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FRUIT TREES.

All Kinds of

Fruit and Ornamental Trees, Shrubbery,

FLOWERING PLANTS, &c.

Strawberry, Raspberry, Gooseberry Plants of choice varieties, Grape vines, White Grape Currants, and other choice varieties by the hundred or thousand.

Hardy Ever-blooming Roses.

20,000 Evergreen Trees of hardy varieties,

GREENHOUSE PLANTS,

Roses for winter blooming in pots. Asparagus Roots. Pic Plant. Diehlytra Spectabilis, a new hardy flowering herbaceous plant.

A great variety of other plants for sale at wholesale and retail, very low, by

Detroit, Sept. 22, 1857. oc2t

HUBBARD & DAVIS.

DETROIT RACE COURSE.

The First Meeting over the above Course will take place this Fall, commencing Tuesday, September 29th, 1857, and continuing Four Days.

First Day—Tuesday, Sept. 29th.

Purse \$100, with an inside stake of \$50—half forfeit—2 mile heats—to name and close 15th September.

Same Day—Second Race—Trotting.

Purse \$50, \$10 entrance—half added for Horses that never trotted better than 2.55 in a race—mile heats—best 3 in 5, to go as they please.

Second Day—Wednesday, Sept. 30th.

Purse \$100—Open to all carrying one hundred pounds—mile heats

Same Day—Second Race—Pacing.

Purse \$50, \$10 entrance, half added—mile heats—best three in five to go as they please.

Third Day—Thursday, Oct. 1st.

Purse \$200, with an inside stake of \$100, half forfeit, open to all—3 mile heats—to name and close September 15th.

Fourth Day—Friday, Oct. 2d.—Hurdle Race.

Purse \$100, with an inside stake of \$50—half forfeit—a dash of 2 miles over eight hurdles, 3 feet and 6 inches high, of stiff timber, carrying 145 pounds each, to name and close Sept. 15th.

Same Day—Second Race—Trotting.

A CHANCE FOR STALLIONS.

Purse \$50, with an inside stake of \$20—play or pay—open to all Stallions that have served Mares this season in the State of Michigan—mile heats—best 3 in 6—to go as they please, name and close Sept. 29.

Ten per cent entrance to all purses. Any person entering a Horse to any of the above Races or Trots must be a subscriber of \$10 to the Racing Fund. All Purses and Stake money will be hung up at the stand and delivered to the winning jockey by the Judge. The above Races will be governed by the New Rules of the Fashion Course, New York.

HENRY CHAPPELL, Proprietor,
Detroit P. O., Box 1103,

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FOR THE

STATE FAIR

To be held at Detroit on Sep. 29, 30, & Oct 1st, 2d.

PASSENGERS COMING TO THE FAIR

FROM points west of Kalamazoo, can take any of the Regular Trains of the 28th, 29th and 30th inst., and the 1st of October, and those from Kalamazoo and places east can take any of the Regular Trains excepting *Lightning Express* of the 29th and 30th inst., and the 1st and 2d of October, or SPECIAL TRAINS leaving Kalamazoo at 6 15 A. M., and Jackson at 5 45 A. M., on Fair days. Special Trains will stop in both directions at regular and signal stations.

RETURNING SPECIAL TRAINS will leave Detroit for Kalamazoo at 3 P. M., and for Jackson at 4 45 P. M.

Special Trains going East will leave signal stations as follows:

Kalamazoo	6 15 A. M.	Chelsea	7 10 & 10 10
Galesburg	6 36	Dexter	7 35 & 10 30
B. Creek	7 10	A. Arbor	8 05 & 10 55
Marshall	7 45	Ypsilanti	8 30 & 11 15
Albion	8 15	Wayne	9 00 & 11 45
Parma	8 40	Dearborn	9 20 & 12 05
Jackson	6 00 & 9 10	Detroit, arrive	9 50 & 12 30
G. Lake	6 35 & 9 40		

For the time and places at which the Regular Trains stop, reference must be had to the regular advertisement of Trains.

State Fair Tickets not used within the time will be no value on other trains.

PRICES OF STATE FAIR TICKETS.

Entitling the purchaser to a passage to Detroit and return:

Dearborn	\$0 30	Galesburg	\$4 00
Wayne	0 60	Comstock	4 25
Denton's	0 90	Kalamazoo	4 45
Ypsilanti	1 09	Ostemo	4 50
Geddes	1 20	Mattawan	4 50
Ann Arbor	1 23	Paw taw	4 50
Delhi	1 30	Decatur	4 50
Scio	1 40	Dowagiac	4 75
Dexter	1 60	Pokagon	4 75
Chelsea	1 80	Niles	4 75
Francisco	1 80	Buchanan	5 00
Grass Lake	2 10	Terre Coupee	5 25
Leoni	2 30	Chamberlain's	5 30
Michigan Centre	2 30	Acory's	5 50
Jackson	2 60	New Buffalo	6 00
Sandstone	2 50	Michigan City	6 25
Parma	2 75	Porter	6 25
Concord	2 85	Lake	6 25
Albion	3 00	Malteson	6 25
Marengo	3 25	Deloit	7 00
Marshall	3 50	Gibson's	7 00
Ceresco	3 75	Calumet	7 00
Battle Creek	3 75	Chicago	7 00
Augusta	4 00		

From the Regular Stations, which are printed in Roman, the Tickets will be sold by the Agents at Each Station, and from Signal Stations they will be supplied by Conductors on the Trains.

The fare from Regular Stations, when paid in the cars, will be 10 cents higher than the price of Tickets sold by the Station Agent.

Live Stock and Agricultural Implements.

Live stock, agricultural implements, and other articles for Exhibition at the Fair, will be transported to Detroit and back, *free of charge*, at the owner's risk, as follows:—The regular rates of transportation must be PRE-PAID at the point of shipment, which must be at a regular station where the Company have an Agent. Upon the return of such live stock or other property, sent for exhibition, it will be delivered free of charge for transportation from Detroit, and the amount paid for freight to Detroit, refunded.

Horses and carriages taken to the Fair for convenience of persons in attendance, and not for exhibition, will be charged at regular rates both ways.

One person ONLY to a full car load of animals, will be brought FREE, and that person for the purpose of taking care of the stock. Therefore, should two or more persons ship in the same car, and choose to go with their stock, all but one will be charged fare.

Property can be sent as above on the Regular stock and Freight Trains from the 23d of September until the 1st of October; and to ensure the proper accommodation, notice of all Live Stock to be sent, should be given to Station Agents at least three days in advance of its shipment. All property to be returned under above arrangement, must be offered before the 10th of October.

R. N. RICE, Superintendent.

M. C. R. R. Office, Detroit, Sept. 19, 1857.

NEWMAN'S THORNLESS BLACKBERRY.

STRONG and finely rooted plants of this valuable new variety will be sent out this season at \$4 per doz. \$10 per fifty, \$18 per hundred, and \$130 per thousand.

Address, A. A. BENNELL, Milton, Ulster Co. N. Y.
Sole Agent for the sale of plants. oct18

THE GREAT ENGLISH REMEDY.

SIR JAMES CLARKE'S

CELEBRATED FEMALE PILLS!

Prepared from a Prescription of Sir John Clarke, M. D. Physician Extraordinary to the Queen.

THIS invaluable medicine is unfailing in the cure of all those painful and dangerous disorders incident to the female constitution. It moderates all excess, and removes all obstructions, and a speedy cure may be relied on.

TO MARRIED LADIES

It is peculiarly suited. It will in a short time bring on the monthly period with regularity.

Each bottle, price One Dollar, bears the Government Stamp of Great Britain, to prevent counterfeits.

CAUTION.

These Pills should not be taken by females that are pregnant, during the first three months, as they are sure to bring on miscarriage; but as every other time and in every other case, they are perfectly safe.

In all cases of Nervous and Spinal Affections, Pains in the back and limbs, Heaviness, Fatigue on Slight Exertion, Palpitation of the Heart, Lowness of Spirits, Hysterics, Sick Headache, Whites, and all the painful disorders occasioned by a disordered system, these Pills will effect a cure when all other means have failed, and although a powerful remedy, do not contain iron, calomel, antimony, or any thing hurtful to the constitution.

Full directions accompany each package.

Sole Agents for the United States and Canada,

JOB MOSES,

(Late I. C. Baldwin & Co.)

Rochester, N. Y.

N. F.—\$1.00 and 6 postage stamps enclosed to any authorized Agent, will ensure a bottle of the Pills by return mail.

For sale in Detroit by J. S. CUTBERT & CO., FARRAND & WHEATON, T. & J. HINCHMAN, GEORGE B. DICKENSON & CO., E. C. TERRY, and in one Druggist Store in every town in the United States. April 1st, 1857. 6m

DOCTOR HOOFLAND'S

GERMAN BITTERS,

PREPARED BY

Dr. C. M. JACKSON, Philad'a, Pa.

WILL EFFECTUALLY CURE

LIVER COMPLAINT, DYSPEPSIA, JAUNDICE, Chronic or Nervous Debility, Diseases of the Kidneys, and all diseases arising from a disordered Liver or Stomach.

Such

as Constipation,

Inward Piles,

Fullness or Blood to the

Head, Acidity of the Stomach,

Nausea, Heartburn, Disgust for Food,

Fullness or weight in the stomach, Sour

Eruptions, Sinking or Fluttering at the pit of

the Stomach, Swimming of the Head, Hurried and difficult Breathing, Fluttering at the Heart, Choking or suffocating sensations when in a lying posture, Dimness of Vision, Dots

of webs before the Sight, Fever and Dull Pain in the Head,

Deficiency of Perspiration, Yellowness of the Skin, and

Eyes, Pain in the Side, Back, Chest, Limbs, &c.

Sudden Flushes of Heat, Burning in the

Flesh, Constant Imaginations of

Evil and great Depression of

Spirits.

The proprietor is calling the attention of the public to this preparation, does so with a feeling of the utmost confidence in its virtues and adaptation to the disease for which it is recommended.

It is no new and untried article but one that has stood the test for ten years' trial before the American people, and its reputation and sale is unrivalled by any similar preparations extant. The testimony in its favor given by the most prominent and well known Physicians and individuals in all parts of the country is immense and a careful perusal of the Almanac, published annually by the proprietor, and to be had gratis of any of his Agents, cannot but satisfy the most skeptical that this remedy is readily deserving the great celebrity it has obtained. Principal Office and Manufactory. No. 96 Arch St., Philadelphia, Pa.

GREAT CURE OF PILES.

CAMDEN, N. J., March 12, 1856.

DEAR SIR—It is with much pleasure I take this opportunity of informing you of the great benefit I have derived from the use of a few bottles of "*Hooiland's German Bitters*." For a number of years I have been sorely and severely afflicted with pain in the stomach, attended by attacks of the Piles, for which I tried a great many remedies, but without affording me any relief. Being advised to use the German Bitters, I did so, using in connection for the Piles, your *Spikenard Ointment*, and I now inform you that they have entirely cured me and resorted me to health, and I would advise all the afflicted to use your valuable medicines, &c.

Respectfully yours, MARGARET REPSHER.

No. 45 Plum Street, Camden, N. J.

Dr. C. M. Jackson, Philadelphia.
For sale by druggists and storekeepers in every town and village in the U. S. and Canada. Dec. 1856.—1 year.

SYRACUSE' NURSERIES.

OUR STOCK for the Fall Trade of 1857 will consist of

All the Larger and Minor Fruits, in unprecedented numbers.

Ornamental Trees, in great variety, including many of the finest native Forest Trees.

The Hardy Evergreens, Norway and American Spruce, Scotch Pine, Hemlock, Balsam Fir, and Arbor Vitæ, ranging from 3 to 6 feet high.

Roses, Shrubs, Dahlias, Peonies, Phloxes, of rare beauty, and in great abundance.

Hedge Plants, of Buckthorn, Privet, Osage Orange, and Honey Locust.

Asparagus and Rhubarb, best kinds and strong roots; and of

Bulbous Roots, the usual annual importation.

Raspberries and Currants, our assortment is especially large and attractive, and embraces all the old and new sorts of worth and repute. So also

GOOSEBERRIES, GRAPES, & STRAWBERRIES, may be found with us in great variety and numbers.

The cultivation of the smaller fruits has always been a specialty with us. For descriptions and prices of our articles, we beg to refer to the new editions of our catalogues, now in the hands of the printer, and soon to appear, viz:

No. 2. A descriptive Catalogue of Fruits:

No. 3. A descriptive Catalogue of Ornamental Trees, Shrubs, Roses, &c.:

No. 4. A descriptive Catalogue of Dahlias, Greenhouse and Bedding Plants, &c.:

No. 5. A wholesale Catalogue for Nurserymen and Dealers.

Forwarded on receipt of a one cent stamp for each.

The urgency of the season's demand upon us for Fruit Trees, &c., having compelled us to add largely to the means of supply afforded by our own nurseries, we have recently purchased of Mr. Thos. Wright the entire property known as the Newark Nursery, and have associated with us in its ownership and management Mr. Richard White, one of its former proprietors, as resident partner, by whom the business will be continued as usual in the name of R. White & Co. By this arrangement our facilities for answering demands upon us are rendered abundant and complete; enabling us to sell as largely, at prices as low, on terms as inviting, and of productions as varied and excellent, as can be afforded by any other nursery establishment.

THORP, SMITH & HANCHETT,
Syracuse, N. Y., August 10, 1857. Sep. 2t

ATTENTION FARMERS!!

ALL those who want a good article of Cloth or Flannel manufactured for their own use, will do well to take their

WOOL

— TO —

CORNWELL'S FACTORY,

Ann Arbor, Mich.

We have been adding *New Machinery* to our establishment, and with our long experience in the business, we feel confident that we can give entire satisfaction.

OUR PRICES ARE:

One half of the cloth we can make from the wool; or

We manufacture wool as follows:

For Cassimeres,	3s. per yard.
White Flannel, 2 yards wide,	3s. per yard.
Do. do, 1 yard wide,	1s. 6d. "
Madder red Flannel, fast colors,	30d. "
Wine and Pressed Flannel,	2s. "

Wool sent by railroad will be promptly attended to. All work warrant 4 well done, and ready when promised, or all damages paid prompt.

A large Stock of Cloths and Flannels on hand,

To exchange for Wool on reasonable terms.

CORNWELL & BROTHER.

Ann Arbor, May, 1857. June 6t

1857. FARMER'S WAREHOUSE. 1857

BURNHAMS & BURRALL,

Dealers in all kinds of Agricultural Implements, Garden and Field Seeds, Salt, Plaster and Water Lime.

Warehouse near Railroad Depot, BATTLE CREEK, MICH. [oct-tf.]

BROOM CORN SEED, King Phillip, Flower, Early Dutton and other varieties of SEED CORN, at PENFIELDS', feb 6m 103 Woodward avenue.

800 PLOWS of all makes. Starbuck, Eagle, Steel and sub soil, Cultivators and Seed Drills. D. O. & W. S. PENFIELD, Agricultural Warehouse, Detroit.

TOLEDO NURSERY ASSOCIATION.

THIS establishment so advantageously located for Western Nurserymen, amateurs and purchasers generally, where they can get their trees fresh from the ground, and save besides a heavy cost for transportation, is now prepared to supply a general assortment of their products, as follows:

Standard and Dwarf Apples,

Standard and Dwarf Pears,

Standard and Dwarf Cherries,

Peaches, Apricots, Nectarines, Plums,

Grapevines, Currants, Raspberries,

Strawberries, Lawton Blackberries,

EVERGREENS, ORNAMENTAL TREES, SHRUBBERY, &c.

All the above have been grown under the immediate care and supervision of A. Fahnestock, late of the Syracuse Nurseries, with every care and attention, and will compare favorably with any stock in the United States, and are now offered on the most advantageous terms, and at the very lowest rates.

Our New Wholesale Catalogue

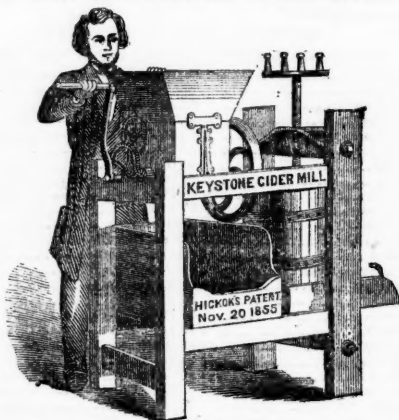
For the fall of 1857 and spring of 1858, is now ready for distribution, and will be forwarded to all applicants, who enclose a one cent stamp to prepay the postage thereon.

For the Association,

Sep2t

A. FAHNSTOCK.

HICKOK'S PATENT PORTABLE



KEYSTONE CIDER MILL,

IMPROVEMENTS FOR 1857.—The following are some of the improvements added this year: The frames are put together with joint bolts. A fly-wheel 22 inches in diameter instead of 16 inches has been added. The form of the teeth has been changed so as to make them grind easier and freer. Entirely new gearing has been constructed, and the upper cylinder has been geared down, so that in connection with the teeth or cylinder, it shall grind much easier. With all these improvements, it is believed that there is no Mill in the market that will grind as fast or with so little power, nor is there any one that is made in a better or more perfect manner.

Price \$45.

Sep 4t

D. O. & W. S. PENFIELD.

A New Work for sale!

SORGHO & IMPHEE.

THE CHINESE & AFRICAN SUGARCANE.

A COMPLETE TREATISE UPON

THEIR Origin, Varieties, Culture and Uses; their value as a Forage Crop, and directions for making Sugar, Molasses, Alcohol, Sparkling and Still Wines, Beer, Cider, Vinegar, Paper, Starch and Dyestuffs.

Fully illustrated with Drawings of approved Machinery.

With an appendix by Leonard Wray of Caffraria, and a description of his patented process for crystallizing the juice of the Imphee, with the latest American experiments, including those of 1857 in the South.

By HENRY S. OLCOTT.

To which are added translations of valuable French Pamphlets received from the Hon. John Y. Mason, American Minister at Paris, Price ONE DOLLAR, Sent by mail postpaid. Orders taken immediately. Those first received will be first filed.

C. M. SXTON & CO.

3t Agricultural Book-Publishers, 140 Fulton-street, N. Y.